

JOURNAL  
OF  
THE MILITARY SERVICE INSTITUTION  
OF THE  
UNITED STATES.

[COLONEL WM. H. POWELL, U. S. A., EDITOR.]

*"I cannot help plead to my countrymen, at every opportunity, to cherish all that is manly and noble in the military profession, because Peace is enervating and no man is wise enough to foretell when soldiers may be in demand again."*—SHERMAN.

VOL. XXVIII.

MARCH, 1901.

NO. CX.

THE ORGANIZATION OF A STAFF BEST ADAPTED  
TO THE UNITED STATES ARMY.\*

BY HENRY T. ALLEN, MAJOR 43D U. S. VOLS., CAPTAIN 6TH U. S.  
CAVALRY.

TO attempt a solution of the staff problem without approximating the strength and character of the forces to which it is to be assigned would be like supplying an army without knowing whether it consisted of two corps or four corps, whether it was to serve in the arctic zone or in the tropics. It is hardly worth while to revert to the law governing the existence of our increased strength, the period of its duration, and its legal status after July 1, 1901, because unexpected and unforeseen incidents have arisen which must influence the most conservative legislators and bring about early changes in the army. The possession of considerable territory in widely separated parts of the earth's surface, the self-constituted guardianship of the lower half of the western continent, and commercial interests in all important ports and countries wherever they be, added to the shrinkage of the earth by reason of electric and steam advancements, have made the United States a world power. This condition is inevitable to all great states, but in the case of the great state of America, it was hastened by recent military success.

\*The Board of Award having deemed that neither of the Essays was of sufficient value to merit the first prize, have recommended this essay for first honorable mention. The other two essays received are published by instruction of the Council.

forces, and expect them to act as mounted infantry, while the French still employ masses of cavalry and regard charges as still perfectly feasible. Major Mott thought the horsemanship of the French officers excellent. They have been described as poor riders, he says, but they demonstrated the contrary in the fine display they made round Chartres. He was also very much pleased with the artillery. The new gun appeared to him to be a most efficient weapon, and to involve a new method of working which is a vast improvement on the old style. "The French artillerymen know their business, too, and their prompt and effective manœuvring, combined with rapid serving of the guns, is simply admirable." Another point that impressed him was the use made of motor-cars, though he does not think that they would be of great value on rough American roads, and over the enormous tracts of country which might have to be traversed in the United States.—*Army and Navy Gazette*.

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It is well known that the peace staff should bear a greater ratio to the mobilized staff than does the peace army to the war army, for the simple reason that a good staff requires technical skill and training such as cannot be obtained in extemporized expedients. I will, therefore, assume a peace standing army of approximately 100,000, capable of expanding into a field army of nearly 200,000, by the usual method of increasing the elements of the tactical units and filling up in emergency some of the depot cadres. I will assume the first reserve to consist of 100,000, to be formed in general in accordance with the principles governing the organization of the volunteer regiments now in existence, and that it go to the front as part of the field army; and that the second reserve, consisting of 100,000, chiefly State troops, be utilized to make good the losses occurring in the first two categories, and take the field only in case of urgent necessity. To be on the conservative side and possibly within the limits of legislation, I will largely ignore the last category, and consider merely the 100,000 expansive army with its reserve of 100,000.

#### SIZES OF UNITS.

For the sake of economy and in conformity with the best modern usages and with the necessities of our own service, the infantry regiments should consist of three field battalions, each of four companies of 75-100 men (150 in war), and one home or depot battalion; the cavalry of eight field squadrons or troops, each of 100 men (140 in war), and two depot squadrons; the field artillery (horse artillery included) of twelve field batteries of 100 men (140 in war) of six guns each, and two depot batteries; the engineers of 8 battalions, similar to those of the infantry, each with a depot company; if organized into regiments, then similarly to the infantry. The relative strength of the arms should be:

In peace;

Infantry 70-73 per cent., cavalry 13-17 per cent., artillery 10-12 per cent., engineers 3 per cent.

In war;

Infantry 79-82 per cent., cavalry 6-8 per cent., artillery 10-12 per cent., engineers 3 per cent.

The number of field-guns to 1000 soldiers in the principal



European armies varies between 2.9 for Italy and Russia to 4 for France and Germany, with a general tendency toward an increase in all. The peace strength of companies in the principal European armies varies between 92 and 175, while the war strength of the same is 232 to 255. The peace squadrons or troops varies between 132 and 165; the war squadrons or troops between 134 and 166. The peace battery (of 6 guns) varies between 90 and 128; the war battery between 162 and 172.

#### FUNDAMENTAL CONSIDERATIONS.

In the organization of any instance or measure related to and dependent upon a state for its existence, the character and conditions of the nation must be accorded much latitude. When we refer to the best organized staffs of the most modern armies, we are at once confronted by the fact that the heads of these armies are trained soldiers, and that the War Ministers are generals in active service, merely temporarily detached. Such are the conditions in Germany, Austria and Russia; while in France the Minister of War is also Commander-in-chief. The staffs of these countries are far from being similarly organized; tradition, national characteristics, and evolution have been the principal instruments in fashioning the organizations that direct these vast military machines.

A conventional staff for the American army constructed upon a fixed model or upon purely correct theoretical lines cannot be made to function at once. In the first place, the Constitution is paramount, and whatever scheme be developed and adopted must be under its provisions. We must recognize in the Commander-in-chief, in the normal case, an untrained soldier; and in the next hierarchal grade the Secretary of War, the direct military representative of the President, a civilian, who takes precedence in administrative, economic, and even military questions over all general officers and military bodies. The subordination of the military to the civil authority is an inherited English maxim. As it is hardly possible that the Constitution be changed or amended, whatever scheme be devised must be subject to these conditions.

A practice has grown up in our service by which every person not belonging to the infantry, cavalry, or artillery, who

wears shoulder straps is a staff officer, and the corps to which he belongs is a staff corps; that is, all that is not line is staff. That is at variance with the best military usage, and is confusing if we are to have a modern staff organization. Non-combatant staff would describe the Judge-Advocate General's, Commissary, Quartermaster, Medical, and Pay Corps or departments, while troops of the Engineers, Ordnance, and Signal Corps, could be classified as technical troops.

I shall try and provide a staff for the army outlined above—that is, a peace staff for a standing army of 100,000, and for the State troops in so far as may be authorized by law, and also a war staff capable of executing the duties devolving upon it by a field army of 200,000 in the first line, 100,000 volunteers in the second, and all the State troops in the third. That contingencies might call for a still greater expansion of this staff is easily imagined and decidedly within the limits of probability. The numbers selected are altogether too small for a decisive struggle with another world power, but in that eventuality, which is beyond anything that comes within the domain of probable legislation, I leave the matter to the powers that have so far rescued us—Providence and Yankee makeshift.

#### KINDS OF STAFF.

Every army can be said to have three kinds of staff, though not directly so named. The relations of the bodies that constitute them to each other, to the supreme authority, and to the troops, bring about the existing differences and designations.

In our service there has been a reluctance, especially on the part of the older officers, to employ the phrase general staff or any kindred one, possibly because it savored too much of European methods and possibly because the conditions found in America and the problems encountered have always been successfully met by our system with the old names. This reluctance has been founded on the same kind of conservatism that would have retained the Springfield rifle. I do not mean to say that we do not now, and have not always employed a general staff, a great general (central) staff, and a non-combatant staff; but there has not been such a classification, or naming. The Secretary of War or Commanding General when requiring staff talent of a certain kind has undertaken an investi-

gation to find the proper person or persons to accomplish the desired work instead of having been able to call upon individuals or committees at hand specially trained for the work. The difference is one between trained and untrained officers and officials, but it is above all due to an absence of a correct organization and classification.

#### METHOD OF ORGANIZING A STAFF.

How are we to arrive at a proper organization for our staff? My answer is by a careful study of the advantages and defects of our own system in connection with the same in other truly military countries, and by adopting (only) those features that harmonize with our traditions, the nature of our service, and national characteristics. It is not possible to adopt and apply in its entirety the staff of any given country to another; nor can we expect to start with a ready-made organization—however well it be built on our own foundation and experiences aided by foreign improvements—that will meet all requirements. The great adjuster and regulator, evolution, must here as elsewhere have ample sway in important creations.

I will start with the unchallenged statement that the main objects of any staff are to work out and harmonize under its commander all the elements that enter into the maintenance of the troops to which it belongs, and to issue the necessary orders of execution. From this it is easily discernible that most of our so-called staff does not fall within these limits and it should be qualified by some such term as non-combatant to distinguish it. All officers and officials who comply with the above provisions belong to the general staff, and of this category those whose duties are connected with certain army plans and measures of purely military concern to war preparation, and who are in reality the staff of the general staff, constitute the great general staff (Germany) or principal staff (Russia). It is hardly necessary for our own service to make this distinction at present. It will come of itself in due time and when it does arrive the word *central* would well qualify it.

The staff of our army should therefore be classified as general, and non-combatant. In up-to-date armies the general staff is a corps whose members may serve with large units as staff officers, in the central bureau or staff, or in command of

troops; but line officers are not excluded from serving temporarily as general staff officers.

RELATION OF SUPERIOR MILITARY INSTANCES IN CERTAIN COUNTRIES TO EACH OTHER.

It might be well to note here the relations to each other of the higher military instances of several great states with a view to comparison with our own, and as a possible aid in evolving what many practical military men as well as theoretical experts are now interested in.

*France.*—The Minister of War is real head of the army—and president of the superior council of war, which is the next hierarchal instance. This council is composed of the chief of the general staff and eight other generals of high rank who are to command army corps and armies during war; it therefore decides important military measures and passes upon schemes worked out under the supervision of the chief of the general staff. In time of war the latter becomes chief of staff of the Commander-in-chief. The Minister of War does not necessarily take active command in time of war in the field. In the next instance follow the technical committees of special branches.

*Russia.*—The Minister of War in peace is easily second to the Emperor as head of the army, but whether he take the field in time of war will depend upon his individuality; in no case will he have supreme command. There is also a council of war which is the next hierarchal step but its sphere is chiefly limited to economic questions. Following this is the chief of the principal staff who is likewise chief of the general staff and is directly subordinate to the Minister of War. In the Ministry of War there are the following departments, not unlike our own; supply, artillery, engineers, medical, judge-advocate general, instruction, and Cossack troops.

*Germany.*—The Commander-in-chief in peace and war is the Emperor. The next instances in order, and each independent of the other, are the Ministry of War, great general staff, and military cabinet. In my opinion the absence of hierarchal dependency, especially between the first two, is a weakness in the German system, and will be so recognized when the Commander-in-chief is not by nature a real soldier, or when the

chief of the general staff does not belong to the von Moltke class. The Minister of War is charged with political and budgetary matters, questions affecting the organization and recruiting of the army, and with all affairs of a military economic character. The general staff has approximately the same functions here as in all other armies where it exists and they will be enumerated later. The military cabinet has charge of petitions and presentations requiring confirmation of the sovereign, matters relating to superior commands, and of questions of appointments, commission and promotion. The chief of the general staff is head of the great general staff and in time of war is the chief of staff of the Commander-in-chief. In time of war the Minister of War would probably not quit his duties as organizer and administrator. In the next instance, likewise directly subordinate to the Emperor, are the general inspectorates of artillery, engineers, instruction, and cavalry, also the five army inspectorates. The heads of these inspectorates are officers of high rank and virtual commanders of the troops within their respective spheres. There is a mistaken idea in some quarters that officers of our Inspector General's department should occupy the same relative positions. The general inspectorate of artillery would be, in our parlance, office of the chief of artillery and in army inspectorate would be the headquarters or office of the commander of several army corps which he would probably lead as an army in time of war.

*Austro-Hungary.*—As in Germany the Emperor is both peace and war lord. After him comes the Minister of War of the active army, Minister of War of landwehr and Minister of War of honved (Hungarian second line), each of whom is a cabinet minister, and therefore directly under the Emperor, but responsible before their respective parliaments. The military cabinet is in a sense intermediary between the Emperor and the three Ministers, and passes upon reports submitted by them. In the Ministry of War are five divisions occupied as follows: with the navy, personnel, organization and training, technical matters, and economic work; also the chief part of the general staff, the inspectorates of the different branches of arms, and certain special committees.

Until 1881 the chief of the general staff was completely sub-

ordinate to the Minister of War, but since that time he has become more independent in that he is personally responsible to the Emperor, though he must, as in Russia, still submit his reports through the Minister of War.

An examination of these principal instances in the four great military states shows a vast difference in organization and in military hierarchy. Especially is this true as regards the status of the Minister of War and the chief of the general staff.

A GENERAL STAFF NOT IRRECONCILABLE WITH OUR  
SYSTEM.

I maintain that our unusual hierarchy of a civilian Commander-in-chief, civilian Minister of War, Commanding General of the army, Adjutant General who reports to both the preceding, and the departmental system is by no means incompatible with a good effective general staff.

The Secretary of War occupies a position almost analogous to the Minister of War in Russia and Germany, but with larger powers than the latter.

The Commanding General combines some of the duties of Minister of War, some of those of Commander-in-chief, and some of those of chief of the general staff. He has no direct relation with economic questions and is not charged with the most vital measures devolving upon a central staff. His logical duties are therefore of an advisory character to the Secretary of War, and of an executive nature as far as military measures are concerned. For these reasons he would not be held at his desk in time of war.

The Adjutant General corresponds in many points with all chiefs of general staffs. In France and Russia the latter report directly to the Minister of War; in Austria to the Commander-in-chief through the Minister of War; and in Germany directly to the Commander-in-chief. The staff organization of all countries are continually undergoing changes; the powers of this or that instance are enlarged or curtailed, depending often upon the individuality of the head.

The relation of Commanding General and Adjutant General to each other and to the Secretary of War could be accurately defined by law. One or the other of the former could be named chief of the general staff, and the remaining one either given



complete control of purely military matters, or be put at the head of a superior military council which would pass upon certain important matters before they reached the Secretary of War, as is done in France. In the first case, the chief of the general staff should report directly to him ; in the second case, he would lose his military executive power (but not necessarily his command in time of war), and the chief of the general staff would report directly to the Secretary of War. I should prefer to see the powers of the Secretary of War restricted to political, administrative and economic questions, and pure military control turned over to the Commanding General ; but as this is beyond the pale of consideration, I drop it.

#### OUTLINE OF HIGHER INSTANCES FOR OUR ARMY.

Therefore to express in words the crystallization of a scheme that is rational and logical in the given premises as regards the higher instances we get the following: 1. The Secretary of War as he is, with full military administrative and economic power under the Commander-in-chief, the President. 2. The superior military council, which would absorb the advisory duties of the office of the Commanding General, leaving the executive ones to be carried out directly by the Secretary of War. The Commanding General would thus become its president. 3. The chief of the general staff, which would absorb in a large measure the duties of the offices of the Adjutant General and Inspector General. 4. The departmental system, somewhat changed from its present classification.

I am aware of having made a long digression to arrive at the starting point, but until the status of the head was determined it was difficult to begin with the body.

#### DUTIES OF THE GENERAL STAFF.

The importance of having some particular officer or bureau charged with war preparation was long since recognized and the natural selection fell upon the future chief of staff of the Commander-in-chief, whose duty it was to remember that the object of the army was its effectiveness in war. The general staff was therefore charged with the solution of problems of strategy and organization, mobilization and concentration, transportation of troops, topographical work and maps, collection of information concerning foreign armies, and in some countries with recruit-

ing, personnel, and instruction. In no two countries are the duties of the general staff similarly classified, and I believe that the classification of no one could conveniently be made to meet the necessities of our situation. In Germany the inspectorates, as seen above, are directly subordinate to the Emperor, while in Russia they have the same relation to the chief of the general staff.

I will therefore endeavor to outline the duties that should fall under the chief of the general staff of the United States army, interfering as little as possible with the present departmental system and trusting to the evolution of experience to correct defects and make needful changes.

Without reflecting on many officers doing true staff duty I am compelled to say that the Adjutant General and Inspector General corps contain at present most of the truly staff officers. Both these corps should therefore be combined to form the nucleus of the general staff. Under any system certain officers of other bureaus are and will continue to do general staff duty whatever be their designation. Theoretically there is no reason why the ordnance and artillery should not be combined into the artillery department, as in all other countries, with one possible exception. Practically there would at first seem some difficulties, but they are only those due to the conservatism of time. The same can be said of the signal and engineer corps, which should be consolidated into the engineer corps. Likewise, the Commissary Department and Quartermaster Department—part of the latter's duties, such as plans for constructions, schemes of transportation, being assumed by the general staff—should be combined in the supply department.

The Judge Advocates General, Medical, and Pay Corps would not be changed as regards their legal status for the present.

It is necessary to consider here another important measure in connection with the above that has not been possible in our service on account of the paucity of troops and the vast extent of territory covered—I refer to the combination into brigades and divisions. Of army corps it may still be premature to speak; but for purposes of instruction and discipline it will be necessary in the future to exercise officers and troops in large



units. The organization of these units need not conflict with our traditional territorial or departmental commands. It must, however, be extended to the State troops during certain periods, and for these occasions there must be additional Regular staff officers.

The central bureau of the general staff should be divided into sections or divisions, each under an officer of the staff supposedly well qualified for the particular place. The following duties might be cited as logically falling under the chief of our general staff: Orders, promotions, appointments, records, mustering, recruiting, campaigns, military problems, General Staff College, maps, military history, publications, militia, transportation of troops, and information of foreign armies.

Military instruction, pensions, the general problems of armament and fortifications, general inspections, and such other duties as the Secretary of War might choose would fall in the domain of the superior military council, which should consist of officers of various branches, of ripe experience, and of much professional ability. It should include the chief of the general staff and other officers specially qualified for large commands.

#### THE CENTRAL HIERARCHY.

1. Secretary of War with the assistant secretary of war.
2. Superior military council composed as above.
3. Chief of the general staff with various sections, charged with the work outlined above.
4. Bureaus, as follows: Judge Advocate General, supply, medical, pay, engineers, and artillery.

The superior council would report directly to the Secretary of War, and all reports of bureau chiefs intended for the Secretary of War should pass through the chief of the general staff. This arrangement it is believed would prevent friction and at the same time keep the general staff abreast of all internal matters of interest to the army. So far I have spoken only of the general staff officers required in the central bureau, but the greater portion of the corps would serve as chiefs of staff and inspectors of general commands, at the staff college, as military attachés, with the State troops, and on other special duty.

#### NUMBER OF GENERAL STAFF OFFICERS REQUIRED.

Inasmuch as there should be no provision preventing line

officers from performing duties of the general staff or of certain branches of the non-combatant staff, and likewise officers of the non-combatant staff from performing general staff duties, it would be better not to start with the complement of the organization necessary for mobilization. There should be a major general as chief, and two brigadier generals for especially important work in the central bureau or as chiefs of staff of operating armies; each section of the bureau (probably five) should have at least 1-2 officers, one a field officer; each army corps in peace (if there be such) should have at least 2, one as chief of staff, the other as assistant and inspector; each division should have 2, one as chief of staff, the other as inspector; and each brigade one.

The peace army selected as a basis would have approximately 65 regiments of infantry, 15 of cavalry, 12 of artillery, including field and sea-coast, and three of engineers, including the signal corps—or a total of 95 regiments. Reckoning 2-3 regiments in each brigade—2-3 brigades in each division, and 2-3 divisions in each corps there would be 6 corps, 15 divisions, and 38 brigades. This does not consider the second line of volunteers or the State troops, where there should be one officer for each State or group of States; still it calls for not less than 1 major general, 2 brigadier generals, 35 field officers and 38 captains.

Since many of the troops would not be brigaded or divided in time of peace and since other officers are not barred from staff duty, the total number of the corps 78 with other officers specially selected, would suffice for service with State troops, at territorial headquarters, in the War Department, and on such other duties as might be ordered. The line officers that would thus become familiar with staff duty would be eligible on mobilization for appointment in the second line of veteran volunteers, and for the third line of militia. While not directly pertinent to staff organization, the detail of staff officers with State troops, and the regular recruiting of certain regiments from given localities, recently successfully carried out in time of peace, are intimately connected with each other and suggestive of further advantageous application in an enlarged army. The political subdivision of the country into States

lends itself admirably to the principle of permanently recruiting given units from given States, the size of the unit depending upon the population of the State.

#### PERMANENT GENERAL STAFF CORPS.

In recent times much has been said for and against the existence of a permanent staff corps, some going so far as to have every member even to the head revert to the line as his normal status. In my opinion this would be vicious in principle even were there worthy precedent for it. The object to be obtained thereby, it is claimed, is to keep the staff in close touch with the requirements and necessities of the army, an end that can be accomplished by temporary return to the line for a period sufficiently long to give practical experience and familiarity with troops. I am therefore opposed to the principle involved. Candidates for general staff officers should be selected primarily from officers of the army of 5-7 years experience who promise special talent in the necessary direction, then put through the war college training. Those passing successfully should be given an extra grade in the general staff corps and remain in the same for reasons fully as potent as those that retain an engineer or artillery officer in his branch. For each 3 years service in his corps he should then be returned to such branch as the chief of the general staff might select for the period of one year—such returns to cease after the officer has passed the grade of lieutenant colonel. While serving in the line the officer should be given a command commensurate with his grade. Officers of engineers and artillery serving in their respective bureaus should be required to fulfil the same obligations in their separate branches.

#### NUMBER OF NON-COMBATANT STAFF OFFICERS REQUIRED.

The various ramifications of the supply department or corps would necessitate a large number of officers. It would be freed from some of the problems of transportation and construction by the creation of the general staff, but a vast amount of work would devolve upon it. Following the suggestions and reasons set forth above I would restrict the peace status of this department to the numbers and grades of Regular and volunteer officers now serving in the Quartermaster and Commissary departments, trusting to a transfer of some of those Regular officers

on mobilization to the first and second reserves and having their places filled from the line.\* The officers of this department primarily selected from the line after a careful examination of record and general fitness should likewise revert to the line under conditions similar to those existing for the general staff; and for the same reasons the assignment of officers of the supply department to brigades, divisions, and corps would follow the lines laid down for officers of the general staff.

The Judge Advocate, Medical, and Pay departments as to numbers and grades would remain as they now exist, including both Regulars and volunteers. As their duties are purely non-military there is no necessity for training with troops; and as their effectiveness is now recognized no radical changes of organization are required. Even if regiments had paymasters, or their quartermasters (supply officers) were authorized to make payments there would still be required a bureau intermediate between them and the auditor. This would merely reduce the number of Regular paymasters and would therefore be in the interest of economy but probably not of efficiency.

The establishment of hospitals for both peace and war should correspond with the necessities of the situation, determined, as far as possible in advance, upon presentations by the medical bureau, recommended with or without modifications by the superior military council and approved by the Secretary of War; and the distribution of medical officers should conform approximately to the following: three to each regiment, 1-2 at brigade headquarters, 2-3 at division headquarters, with a sufficient reserve to supply each garrison and to furnish the necessary quota for hospitals. As the latter number can never be known definitely and since it would be prejudicial to economic interests to maintain a larger force of Regular medical officers, contract surgeons should be employed as at present.

In this brief paper I have tried to set forth merely the basic principles of a staff organization that could be consistently adopted in our service. To be more precise, for example, to go

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\* That the Regular regiments be not reduced in their officer quota, these vacancies should be filled by volunteers.

further into details of the various sections of the central bureau, even so far as classifying them, would be undertaking a purely conventional matter in which the chief of the general staff should be given full scope, and it would not be advisable. The same would be true of the definite assignment of officers of the general and non-combatant staffs, both as to rank and number, to the higher organizations of the standing army. Moreover, to designate a fixed staff for a fixed contingent to be called into existence in time of war, as is done in certain countries, would not be a system "best adapted for the United States army." The reorganization of the combined departments would require careful consideration, and this would probably be best effected by the superior military council, which would thus have an excellent opportunity to give evidence of its value and proof of its *raison d'être*.

The organization of a staff college, wherein the scientific principles of military art in its highest sense may be imparted to officers selected for their talents and general staff inclinations is a necessity. The practical application of these principles in the field, where large bodies are formed for training purposes is intimately connected with staff work, and is likewise a necessity if our forces in actual warfare are to give the greatest return to the country with the least loss of life and expenditure of treasure.

It does not become a solvent practical nation to delay the creation of a necessary adjunct of a modern army—a modern staff organization—unless it be prepared to acquiesce in the humiliating experiences with which we have recently been made familiar.

## THE ORGANIZATION OF A STAFF BEST ADAPTED FOR THE UNITED STATES ARMY.

BY LOUIS C. SCHERER, 27TH INF. U. S. VOLS., FIRST LIEUT. 4TH  
U. S. CAVALRY.

### INTRODUCTION.

**B**EFORE determining upon or discussing the organization of a "Staff Best Adapted for the United States Army," we must determine first the organization and strength of the army itself, upon which the organization of the staff will in a great measure depend. And as Congress does not give us an organization for the line of the army, we are compelled to assume one to answer existing conditions.

As to strength, arguments need not be repeated here to show why, for present uses, it should be one hundred thousand. That is practically the strength to-day, it will remain so until June 30, 1900, and, laying other questions aside, it is the force which should be assumed when considering the question of staff organization.

As to the organization of the force, we may consider that the proper subdivision of it as a fighting force would be into three corps of infantry and a separate cavalry division; each corps to be composed of three divisions, of three brigades of infantry each and a certain proportion of cavalry and artillery; and each brigade to be composed of three regiments of infantry. The cavalry division should be composed of all cavalry regiments not otherwise assigned, organized into brigades. This will give the following approximate strength for the various units: Corps, 30,000; division, 10,000; brigade, 3,500, and regiments about 1000. As soon as active operations are abandoned it has been the custom in our army to change the appellation of the units and make them follow territorial lines; thus giving us divisions, departments, and districts, corresponding to the units for active military operations, of corps, divisions,\* and

\*It is unfortunate that in this illustration the term "Division" has two meanings, but these two uses of the word are not by any means the only ones in military parlance.

brigades. Hence it will make no difference which system we consider, a transition from one to the other being easily accomplished. It is to be noted that in times of peace the district and the division fall into disuse, the department alone being retained as an intermediary administrative unit between the War Department and the regiments and posts. This, however, does not change the proposition, for in case of necessity the district and the division are immediately created with powers and functions corresponding respectively to those of the brigade and corps. As, however, the territorial subdivisions are made simply as a matter of convenience and possible economy in the administration of the army in time of peace, it will make the discussion clearer, if we consider in the present essay only the military subdivisions, for it must be remembered that the training of an army is for the purpose of enabling it to wage war, and its organization should be determined with that object in full and constant view.

These assumptions as to the strength of the army and its military organization will, therefore, without further arguments or reasons, be taken as the basis on which is founded the scheme for organization of the staff, hereinafter laid down.

In any case the strength of our army as determined by future Acts of Congress can vary but little, and there are few who would suggest a change in the organization of the line as presented above.

But while a definite strength for the army has been assumed as a basis of discussion, another feature enters and that to a large extent. If we have an army of one hundred thousand men, that force must be regarded as a nucleus for the formation of a larger army such as will be required in case of war. This consideration affects the organization of the staff in the greatest degree, because, above all, the staff of the army of 100,000 must be so constituted that in case of need it may be expanded rapidly and without friction to answer all the requirements of a staff for an army of some five or six times the number. A good staff officer must first be a thorough line officer, and besides must have special training not necessary for the line. Such material as will be needed cannot be produced by an order from even the highest authority in our land, but must be carefully pre-



pared in time of peace. Therefore we must have in the army at a strength of 100,000 a superabundance of officers and men trained in staff and administrative work.

To formulate a plan to provide for a proper peace organization of the staff to answer these requirements is the object of this paper.

The first question is as to what shall constitute the staff, and there are many distinctions made. For instance, we hear of the German army with a Great General Staff; of the French with an "*Etat Major*"; of the English with Staff Corps, and in our army we have general officers and officers of the general staff, and staff departments. The meaning of the word "staff" really implies "direction," in contradistinction to "execution," the staff being charged with the former, the line with the latter. Or we can go further and include in the word "staff," as applied to persons, duties, functions or departments, such as are not directly and immediately concerned in the actual fighting of the troops on the field of battle, that is, in the actual handling of men on the firing line. If we adopt this comprehensive meaning of the word it will afford a good basis to work on and to distinguish as to what should be considered in the organization of the staff. We may include, therefore, in the staff, all who are not soldiers carrying rifles, or officers exercising command over platoons, companies, battalions and regiments. It matters not whether this arbitrary distinction be too sweeping, because it is made for convenience in discussing the subject; and because the discussion will be complete only, if all those above classified as belonging to the staff, are assigned proper places in the scheme of organization.

Again, the staff is commonly divided into military and administrative. This division is a natural one and arises from the difference in the nature of the duties. The administrative staff includes persons engaged only in those services which have nothing directly to do with military operations, but are engaged in problems of supply, the rendering of reports, and keeping of the necessary records.

While both administrative and military staff duties are often performed by one and the same officer, the two kinds are easily distinguished and give rise to the very natural classification of



staff officers into the general staff, and the staff departments and corps.

The general staff includes all those persons of the staff who are engaged in the direction of military operations and those engaged in strictly military staff duties. The general staff may again be divided into general officers and staff officers, the former embracing all Commanding Generals from the highest to the lowest, and the latter the officers constituting the military staffs of these general officers.

The staff departments and corps include all those persons of the staff who are engaged in exclusively administrative staff duties. These definitions and explanations will make clear the meanings whenever these words are used.

With the foregoing to serve as an introduction regarding the scope of staff organization we can now proceed to take up in order :—

1. The general principles that apply equally to all portions of the staff.
2. The organization of the separate portions or branches  
(a) General Officers. (b) Military Staff. (c) Staff Departments.  
(d) Staff Corps. (e) Other Staff Officers.
3. The organization of the staffs attached to the various military units.

#### GENERAL PRINCIPLES.

*Composition of a Staff Department.*—Each department should form a unit and be complete in itself. This implies that it must have a head, the requisite number of subordinate officers, and, what is frequently forgotten, the proper quota of enlisted men necessary for carrying out all the work falling to the lot of the department. It should not be necessary to detail officers or enlisted men of other departments, or of the line, for work, the performance of which belongs properly to a military or administrative staff department. Besides having separate regulations, and a method of doing business evolved from experience and defined in orders, each department should, moreover, have control and management of its personnel. As pointed out later, authority and responsibility must go hand in hand to obtain the best results.

*Composition of a Staff.*—This principle of unity in organi-

zation and action applies equally to the staff of a military organization or of a Commanding General.

The staff composed of members from the various departments should be so constituted and organized as to form a harmonious whole, all working together toward a common end under the direction of the general commanding and his chief of staff. It must be a working staff carefully selected, large enough for the work in hand, but with no superfluous material.

*Rotation in Line and Staff Duty.*—No one will assume to deny the desirability of staff officers returning temporarily to duty in the line, and no argument on this score need to be advanced. It need only be shown that such a system can be practically and easily carried out and all opposition to such rotation will be withdrawn. It can be accomplished easily by following out the scheme of staff organization here laid down.

*Temporary and Permanent Tenure of Staff Position.*—Each staff department should have one set of officers on a permanent list and also another set on a temporary list. This is by no means anything novel in our military system, for we have now and always have had Acting Adjutants General, Judge Advocates, Inspectors, Quartermasters, Commissaries, etc., and at the same time a set of officers on the permanent list in the same departments; moreover, there are in each regiment a certain number of officers performing staff work who do in reality form part of the various staff departments. But this dual constitution of the staff departments should be reduced to some system and order. Officers to act in staff capacities should be appointed for a certain definite period. They should receive advanced rank, and should be brought administratively under the control and supervision of the head of the respective staff departments. The permanent staff corps as now constituted would remain in strength and organization materially as they are, but to each should be added a certain number of temporary staff officers of various grades, who, while assisting in the work during peace, are learning the duties of their positions so as to enable them to occupy them immediately in case of war, and the consequent increase in the size of the army.'

*Tenure of Temporary Staff Positions.*—Such a scheme, if adopted, would produce in the line of the army a large number

of officers fully instructed in staff duties. The number would depend on the relative terms of service in the staff and in the line. If the limit of service with the temporary staff were placed at three years during the holding of a certain line commission, the result would be the instruction of a number of supernumerary staff officers sufficient to supply, in time of war, an army about four times the size of the army on peace footing in which the training was had. Any officer, then, who had served a term of three years in the temporary staff should not again be detailed to staff duty, either permanent or temporary, until he had been promoted one grade in the line. He then becomes eligible for another staff appointment.

*Permanent Officers in Staff Departments.*—The permanent corps of officers of the staff departments as now organized should be retained for various reasons. In each one there is a great amount of administrative and executive work, as, for instance, that of the bureaus of the War Department in Washington, that can be much better carried on by a permanent force. There is much routine business that can be disposed of to greater advantage and with greater economy by regular officials and employes, especially as in our system of War Department administration the heads are not only liable but reasonably sure to change at least once every four years. With conditions so changeable it is well to have a permanent force of officers. In any case, these would be selected with great care and after many years' experience both in their own particular staff work and in line duties.

*Rank of Permanent Staff Officers.*—Ordinarily the rank of these officers at entrance into the permanent staff should be placed at lieutenant colonel, which under the most favorable circumstances would give the appointees some nine to twelve years previous service in the staff and some fifteen to eighteen years in the line, long enough in either branch to identify the officer completely with each. Should the lowest rank of admission into the permanent staff be established at the grade of major, the terms of previous service would be: Staff, minimum three years, maximum nine years; Line, minimum six years, maximum twenty years. This would seem to warrant the appointment to permanent tenure of a staff office men who have shown their worth in the line and staff, without fear that the

interests of the line will suffer by such appointments. Furthermore, we should remember that, while proper rotation between line and staff duty may be a partial cure for the segregation of line and staff, the most potent remedy that can be applied for the purpose of effecting the desired cohesion between these two services is, after all, the thorough decentralization of our entire military system in all its branches.

*Source of Permanent Staff Officers.*—They should be appointed much as they are now from the army at large and from officers of the next lower grade in the line who have shown marked capacity for that particular staff department. The recommendation of the head of the department should be a necessary condition for admittance to a permanent staff department, and efficiency records made while on temporary duty in the staff should receive due weight and careful consideration.

*Rank of Temporary Staff Officers.*—The successful applicant to a temporary staff position should receive a commission in the staff advancing him one grade in military rank. The order making the detail and announcing the appointment should state: "Upon recommendation of the (brigade) commander, (first lieutenant) A. B. is detailed on staff duty for a period of three years with the rank and pay of (captain [mounted]), and assigned to the (Adjutant General's Department). He will report in person for duty to——, and by letter to——." It would seem no more than just to give increased rank to an officer entrusted with increased responsibilities, especially if the preparation for the new duties depended on his own personal efforts.

*Source of Temporary Staff Officers.*—When the appointment of a temporary staff officer in a unit becomes necessary by reason of a vacancy from any cause, it should be made from the line officer of the next lower grade in that unit. The recommendation of the Commanding General and the head of the respective staff corps should be necessary conditions for the appointment. Transfers to other brigades, divisions and corps should not be allowed except in particular cases and for good reasons. The appointment should be made upon application, and after competitive examination, the scope of which should be prescribed by the respective staff departments. Examinations could be arranged for annually, and a list of successful

candidates presented to the commanding officer from which to make his selection.

*Staff Efficiency Records.*—The service on temporary staff duty is to be considered in a great measure as period of instruction and trial, and accurate efficiency records should be kept of each officer's service. These records should consist of reports from three sources: the general officer on whose staff the service is performed, his chief of staff, and the staff officer of the respective department next above the incumbent and to whom the incumbent reports. These reports should be made annually, on June 30th, or upon the expiration of the term of office of the incumbent or those who make the reports. Thus the efficiency records of a temporary Assistant Adjutant General would be made by the division commander, the division chief of staff, and the Assistant Adjutant General of the corps. A general would be called upon to make reports on all his staff officers. A staff officer would be required to make reports on all those in the same department under him; that is, those assigned to the subdivisions of the organization to which he is attached. Since a certain amount of work in each department consists of routine reports and returns which must be submitted at stated times, an accurate method of valuing the work of the staff officer could be easily devised and laid down in regulation; thus making the system uniform throughout the army. The records should be kept by the head of the respective staff departments, to be used in recommending appointments to the staff, but the records pertaining to any military organization should also be open to inspection by the respective commander, to enable him to determine his selection. The commanding officer should also be given authority to summarily relieve any one of the staff officers under him. Such records would be of the greatest service in determining fitness for appointment to the permanent staff corps, and would also be consulted when it is the purpose of again detailing an officer on temporary staff duty. But their principal purpose and use would be for determining off-hand, the officers to be selected for the staff appointments when the army is increased by Congress and placed on a war footing. This work should be done in time of peace, and the system incorporated in the peace organization of the staff.

*Staff Responsibility.*—If it is important enough to have separate departments for the performance of certain duties, it is also important to give those departments complete control and authority, and then hold them to thorough accountability and full measure of responsibility. Our army system no doubt has this fault, that there is no authority on the one hand and no responsibility on the other. This is true not only of staff departments, but is to be found also in the interior administration of the troop units. Commanders and other officers who have not the authority belonging by right to their rank and office cannot be and seldom are, held to account; the responsibility cannot rest on them, because they have no power to regulate. But the fault has another and more serious consequence. The officer who has not the authority commensurate with his rank is apt to carry the principle further and to interfere with the authority of those under him, mistaking his action, if he thinks about it at all, for a proper supervision and inspection of his subordinates. Thus we go from highest to lowest in the military hierarchy, each assuming the authority of the one below him. The evil, for it is decidedly such, can be remedied only by giving each man full authority and then holding him to accurate account.

It is thus with the staff departments. On the other hand, it is often claimed that even now the staff is too independent and not closely enough connected with the line to do its work in a manner most advantageous to the troops. While this may seem so at first glance, an analysis of the actual conditions, shows that the officers of a staff department are not independent enough. The seeming separation between line and staff can also be remedied very easily, if once we remove the evil of centralization from the system.

*Cohesion between Line and Staff.*—A staff officer is held to dual responsibility; on the one hand to his commanding officer that everything relating to this department in the command is as it should be, and on the other hand, to the head of the department, that the proper methods of administration are used to effect this condition. This dual responsibility of the staff officers on the staff of the various military commands constitutes the connecting link between line and staff; and what is more,



the only one. Therefore, in order to bring about the desired cohesion between line and staff, it must be done by perfecting the mechanism of this connecting link, and so strengthening the relationship. The principle involved can be illustrated best by an example. The quartermaster of a command is supposed to supply it with everything needed in his department. Suppose, that the occasion should arise that the command is in urgent need of something that cannot be obtained in the regular method of supply. In that case the commanding officer becomes sole judge of the necessity, and upon application of the quartermaster, issues the order for the purchase, and by it assumes full responsibility for the act. This relieves the quartermaster of the responsibility, no matter how extraordinary the act itself. But he would still be responsible and accountable to his own department, that his transactions under this authority of the commanding officer were made for the best interests of the service and with due regard for economy. Upon him also rests the responsibility that the best course was adopted under the circumstances, and recommended to the commanding officer. The staff department would thus serve as a check against lax methods, extravagance, and unbusinesslike proceedings. And when it is said that an officer is responsible to another officer or a department, it is meant that that other officer or the department has power of punishment by removal or other procedure in case of duty not performed.

*Control of Military Commanders of their Staffs.*—Staff officers are assigned to military organizations for the purpose of relieving the commander of much of the routine and of the details of military administration. In order to properly carry this idea into execution the staff officers, no matter whether administrative or military must be entirely under the orders of the commander. All the staff officers must be under his control and must be ready to report to him or his chief of staff at all times. Ordinarily they attend to their routine duties without interference, and this is especially applicable to officers of the supply departments. One of the duties of staff officers to their commander consists in collecting and keeping accurate information of all that concerns this department affecting all the troops in the command, and to supply this information at a moment's no-

tice. Thus for example when a division commander wishes to move a regiment of a certain brigade, he calls on his quartermaster for accurate information as to the state of transportation in that regiment. It should not be necessary to acquire this information at this time, by sending a message through the brigade to the regimental commander. On the other hand, the division quartermaster must have a free hand in the management of his branch in the entire command, so as to make this possible. He should be allowed to attend to these routine matters in his own manner, only responsible to his department, and then his work should be judged by the results.

*Responsibility of Staff Officers to their Department.*—The responsibility of a staff officer to his department is effected through the officer of his department serving on the staff of the next higher military unit. To this officer he renders reports and returns, and from him he obtains without further requisition, the materials necessary for operating his department in the command, under such rules and regulations for allowances as are from time to time prescribed. He keeps his superior staff officer fully informed as to the conditions of affairs relating to the department and pertaining to the command. This relates not only to supply but also to reports of strength, stations of companies and detachments, and in fact covers every possible question that may arise. Thus every staff officer will have correct information and it will be immediately available to his commanding officer. It may seem a hard problem to undertake, but with an efficient system of blanks and the reporting only of changes, it is not beyond solution even in an active campaign. A communication relating solely to a staff department matter should not pass through a commanding general's office, where it can serve only to encumber the records, nor should it require his signature, but should remain entirely with the staff officers of the successive organizations.

In all routine matters of the department, or in carrying out the provisions of any order from his general, a staff officer should be able to give his own orders directly to the staff officers of next lower military units. And again, while he has a certain control of these subordinate officers, he is also responsible for their actions. Thus for any question arising the auth-



ority and consequent responsibility is placed where it belongs. Such a system put into actual practice will remove the principal defects and faults in our present army administration.

*Replacing Line Officers on Temporary Staff Details.*—In the experience of the last three years the War Department has no doubt discovered that the best material for the staff in the volunteers, was to be had from the Regular army, but no provision was made to fill the places vacated temporarily by these appointments. The conditions are the same in appointing acting staff officers in the Regular army. As a consequence, the Regular regiments never have their full complement of officers, and this was especially noticeable at the outbreak of the Spanish-American War. Whenever provision is made for the detail of a number of officers of the line, the quota of officers in the line of the corresponding grade should be increased by a like number. This could easily be provided for by a separate paragraph in any army legislation act, by simply stating the number of extra or supernumerary officers. And furthermore, whenever any special legislation is passed which details a number of officers on detached service, as for instance, instructors at colleges, at army and cadet schools, as inspectors of the National Guard, etc., an equal number of extra officers should be added to the army at large. That we need these extra officers, no one will dispute who takes the trouble of examining the duty roster of any Regular regiment. In case of organization of new regiments and for the supply of staff officers for an increased army, these officers will be at once available and their training and readiness will be of the greatest benefit.

*Translation From the Present to the Proposed Staff Organization.*—Should an organization like the one proposed in the foregoing pages go into effect, the transition from the old to the new would be accomplished readily and with few changes in the present permanent staff corps or the present method of their recruitment. Neither would many changes in temporary staff details become necessary. The organization would only be given a uniform system and established on a definite basis. The total number of permanent staff officers would remain about the same, since it would be necessary to add some new

staff departments, hereinafter described, that would have to be supplied with permanent officers of high rank. In forming these new departments it is therefore proposed to transfer officers from the present ones, and that method would give us at once a permanent working force, more or less familiar with the work before them, and at least thoroughly conversant with staff administrative methods.

Thus, instead of inaugurating any great changes, the staff organization here proposed is simply a rearrangement, an improved classification, a separation of duties, a consolidation of each separate unit into a well-organized whole, and an attempt at cohesion between the staff and the line.

Having thus laid down the general principles that should govern all staff departments alike, it is next in order to take each up separately and explain shortly how it is effected. This will give an opportunity of calling attention to certain isolated and special provisions, relating to various branches of the present staff organization, which are partial applications of and have suggested the general principles above laid down.

#### ORGANIZATION OF THE STAFF DEPARTMENTS.

*General Officers.*—Whether general officers should be included in the staff need not be discussed here, since a few words will suffice for this subject. For an army of one hundred thousand, there should be the following generals in actual command of troops: one general to command the army, one lieutenant general for each corps, one major general for each division, and one brigadier general for each brigade. There should, moreover, be a small number of supernumerary generals to take the places of those on details. These supernumeraries could be supplied by temporary appointments to the rank of brigadier general, just as we now have general officers of volunteers.

#### MILITARY STAFF DEPARTMENTS.

*Chiefs of Staff.*—There is one officer properly in the staff, which our army has in practice, but not on paper or in theory. Nearly all military commanders have found it indispensable to have the services of a chief of staff, and even when they have not applied that specific designation, there has been some one of their staff who has performed the duties of the position. When the duty is not performed by one of the general's aides,

it is usually entrusted to the Adjutant General, who in addition to his regular duties exercises those of chief of staff. It is, indeed, a staff department that is lacking in our organization and should be supplied without question. The education and training for the position should be the highest obtainable, and for this a separate organization is necessary. In rank, the chief of staff should be one grade above all the other members of the staff and should therefore be, for the army, a brigadier general, for the corps a colonel, and so on. The head of this department should be a major general who, besides being responsible for the personnel of his corps and the instruction of its officers, acts as chief of staff to the Secretary of War, and is the intermediary between that official and the heads of the other staff departments. Besides the officers that perform the duties of chief of staff to the various commanders, and those of the department at the War Department, this department should embrace all those engaged in the Military Intelligence Office, all foreign attachés, and officers on similar duties. The department should have on its permanent and temporary list officers taken from every arm of the service, and from every other staff department. Without going into details as to the duties of this department, it may be said that it should have supervision of all orders issued, all regulations to be enforced, and all allowances to be made. On that account it would naturally absorb a great part of the duties performed at present by the Adjutant General's Department, and on that account the new department could be best formed by transferring to its permanent list officers from the Adjutant General's Department.

*Inspector General's Department.*—The sphere of this department includes every branch of military affairs, and on that account the permanent list of officers should be chosen from officers who have been on temporary duty in the greatest number of departments. Every unit, including the brigade, should have an inspector general, who should be under the exclusive orders of his immediate commander and who at the same time reports direct to his department. In our army in time of peace we have, besides inspectors general, *inspectors of rifle practice*, attached to each department. Officers on these temporary details should be assigned to the inspector general's department,

thus uniting all branches of inspection duty under one head.

*Aides.*—Aides are under the full and exclusive control of the general on whose staff they are serving. The present method of appointing them solely "on the recommendation of the general," which is productive of such excellent results, should be retained. This illustrates the benefits to be derived from the application of the principle that staff appointments should be made only on the recommendation of the persons under whom the service is to be performed, and who will in a certain sense be responsible for the excellence of the appointments. In this, as in the other details of military economy, nothing is so well done as when the person charged with the execution is given full liberty and allowed his own discretion and then held accountable for the results.

Aides now receive increased pay; and throughout the present military system we find similar isolated provisions, which taken together show the natural tendency towards a staff organization like the one here proposed. We need only make these provisions general and apply them uniformly to all parts of the staff.

Aides should be placed on the same footing as regards increased rank and pay, as other staff officers. As there will be a definite number of aides, the necessary supernumerary officers to replace them in the line, can be correctly provided for.

*Other Military Staff Officers.*—Besides the military staff proper, which may be said to embrace the chief of staff, the inspector general and the authorized aides, the military staff of a general also has other members. These may be divided into two classes:—First, those who are accidentally on the staff by reason of the assignment of the troops under their command, as the chiefs of cavalry and artillery and the provost marshal. Second, the staff representatives of special troops or auxiliary arms of the service, as the chief of engineers, and the chief signal officer. The two last named officials, although belonging properly to the military staff, are better classified under the heading "special troops."

*Chiefs of Artillery and Cavalry.*—Usually the highest ranking officers of the artillery and cavalry, of an army corps, are attached to the staff of the commander and are designated as

chiefs of artillery and cavalry. They do not, however, stand in the same relation to the commanding officer, as do other staff officers, but act as advisers to the general, on matters relating to their respective arms, and may act as inspectors general of these arms. While they belong to the staff, they also take command of their troops, if all or a greater part of them are brought together for combat at any time, and this is especially true of the chief of cavalry, who must not be bound too closely to staff duty.

*Provost Marshal General.*—While organizations detailed for police duty (at division and corps headquarters) may be classified as special troops, the provost marshal is properly a member of the general's staff, on account of other duties devolving upon him. He has supervision of the provost guard, though the actual command of the troops so detailed may devolve on the next in rank. Again, while the provost marshal general is usually the officer highest in rank of the organization detailed for provost duty, he may be selected from other sources.

#### ADMINISTRATIVE STAFF DEPARTMENTS.

*Adjutant General's Department.*—The Adjutant General's department as at present organized belongs properly to the military staff, but the change in duties here proposed will alter this classification and place it among the administrative staff departments. The chiefs of the staff ought to take such military work from the adjutants general, as the latter officials are now supposed to do for their commanding officers, but which they ordinarily cannot perform on account of the press of the administrative work of their department. If the entire attention of the Adjutant General were directed to purely administrative departmental work, it would be a marked improvement. There is no better or clearer way of explaining the duties of the department as here proposed, than to state, that it should have entire charge of the personnel of the command in all matters. Practically, the Adjutant General's department should supply and account for men, just as the commissary department supplies and accounts for rations.

Such an arrangement of functions would enable us to do away, in theory as well as in practice, with the *Commissaries of*

*Musters*, staff offices which formerly were of some importance, but which have become obsolete since the Adjutant General's department has practically performed all the duties.

*The Quartermaster's Department.*—In considering this most important supply and transportation branch, it is of prime importance to create an army service corps, which, under supervision of the Quartermaster's Department, can perform the work of the present attached civilians and the many soldiers on special and extra duty. The desirability of a better organization along this line has been so often set forth that it will be hardly necessary to dwell on its importance here.

*Commissary Department.*—This department also, labors under the disadvantage of having to do its work with untrained men. A well organized corps of enlisted men under this department, and consisting of clerks, butchers, bakers, etc., could do the work quicker and better and more economically than it is done in the present slipshod manner, which we so much deplore. One trained man, like a commissary sergeant, is worth ten soldiers on special duty.

*Pay Department.*—This is strictly a business department, and it would seem that it should be run on business principles. Yet many an officer and soldier when he presents his accounts, may be excused if he gets the impression that paymasters are appointed for the purpose of attempting to discover some way of not paying the accounts. We need only to recall the experience of the payment of our first mileage vouchers to be convinced that these impressions really are formed.

Nearly every civilized government pays its soldiers, no matter how little pay they receive, at least once a week. In our army, payments are deferred to the end of the month, and frequently we are paid only six times a year. Modern business concerns do not treat their employoés in this manner, and there is no apparent good excuse why the army should retain this thoroughly obsolete and reasonless method of paying its just dues. The civilian clerks of all the various departments of the Government are paid oftener than once a month, and to people who have a permanent domicile, the frequency of payments cannot mean as much as it does to the army. It would be a comparatively easy matter to pay once a week, and the great



advantages to be gained would amply repay for the slight expense incurred in accomplishing weekly payments. A good company commander will always attempt to distribute the soldier's salary over the entire pay period if he knows that it will help the men. This the captain is enabled to do now to a certain extent by means of exchange credit, and to a more limited extent by the credit sales of the subsistence department. Company commanders further assist in this distribution by receiving deposits from the soldiers on pay day to keep for use during the period, and many loan little sums here and there among enlisted men to help them out. A man who is apt to go wrong when two months salary is paid out to him at one time, may often be saved by such efforts to distribute the amount in installments. The Government should take this burden from the company commander, by making payments once a week. This would necessitate the appointment of a paymaster for each regiment, but the slight expense would be well repaid in beneficial results. Such regimental paymasters could also supply the quartermaster with funds, and take money from the commissary, thus saving much useless transportation of public funds.

*Judge Advocate General's Department.*—There should be a judge advocate attached to each brigade and each higher unit, and this staff officer should have the necessary complement of clerks and stenographers. Many of the judge advocates are temporary appointees, who receive an advance of one grade in rank, and corresponding increase in pay. The practice of temporary details followed out in this department is another illustration of the application of the general principles laid down for the proposed staff organization.

*Ordnance Department.*—There seems to have been a movement on foot of returning ordnance officers to duty with the artillery branch at intervals. The proposition developed much opposition. The artillery branch, while probably the most important, is, however, not the only one supplied with arms by the Ordnance Department. By making temporary details of officers from all arms of the service, to the ordnance, while at the same time retaining the permanent list in the department, all the difficulties could be overcome.

## STAFF CORPS OR SPECIAL ARMS OF THE SERVICE.

Besides the officers of the various departments named above, the staffs of the generals comprise still other officers. These are the representatives of the auxiliary troops or special arms of the service. They are distinguished from the administrative departments by their designation as "Staff Corps."

In these corps one of the general principles announced for staff organization is not applicable, namely, the detail of line officers on temporary duty. This arises from the special training necessary for the officers and enlisted men of the corps. Still, it would be practicable to have temporary officers, who remain for a certain period on probation, to prove their capacity for this special corps before appointing them to the permanent list.

*Corps of Engineers.*—A chief engineer officer may be classed as on the military staff, but is at the same time in command of the engineer troops assigned to the unit. Though our engineer officers are highly competent, and constitute a finely trained body of technical experts, the department in our recent campaigns has hardly accomplished what might have been expected of so important an auxiliary arm. And the reason was simply that they had neither the necessary number of men nor the material required. It would be wisdom to provide this corps fully in time of peace; when war breaks out it is too late, for the engineers must go with the advance. Each separate command ought to have its quota of engineers and the necessary engineering material.

*Signal Corps.*—This corps also require trained men who are engaged in special and scientific work. Each headquarters, including the brigade, should have on the staff a chief signal officer, and he should be given the necessary men and equipment. When not engaged in the construction of lines of communication and their operation, the signal corps men should be utilized as instructors for the troops. When we consider the splendid work of this corps during the Spanish-American War and the Philippine campaign, achieved under greatest difficulties, we certainly cannot begrudge this department further aid in men and material to prepare it even better for war.

*Medical Corps.*—The medical corps may properly be classed



under special troops, for, although it partakes of the nature of a staff department, it has specific and distinct work, attended without further direction from outside of the corps.

Each battalion should have a surgeon who is under the regimental surgeon. This would enable the department to take better care of the well men of a command. While of course the sick should and do receive every possible attention, yet it should be remembered that the general health of the command depends upon a careful supervision of the well men and careful attention to details of sanitation.

The medical corps is fortunate in having a well organized body of enlisted men. The good results achieved by this system should induce us to make its application uniform throughout the service.

*An Additional Army Staff Department.*—The foregoing enumeration of staff officers, departments, and corps, includes all those that have representation on the staffs of the various military units, and this leads next in order to the composition and organization of the staffs. But before taking up that question it will be necessary to turn our attention to one of the staff departments, which has no part in the organization of troops, but may be said to constitute a staff for the army at large.

*Department of Instruction.*—The department of instruction is another branch of the staff, which exists in fact but not in name, and which should be brought into the general system of staff organization. The fact that early in the year 1898 the Regular army had over four hundred officers on detached service for this duty, is evidence that it is considered a most important one. There was, however, no systematized plan, and consequently no unity of action. That could be brought about by creating a separate staff department, with a head of its own, and its regular and temporary appointees. All officers on duty at army schools, at colleges, and those with the National Guard, should be attached to the department and receive its orders and directions, so that the work to be done in each case could be mapped out and something definite accomplished. We wisely pay much attention to military instruction in all its branches, and the Government and the War Department lend their aid and encouragement in every possible manner. But under present conditions

each officer on this duty must work out the methods of instruction for himself; he receives no aid. A good system would simplify the work, and by making the experience of all on this duty available to those just embarking on it, greatly enhance the results.

One of the chief arguments in favor of the formation of this department is the fact that it would give us, at the outbreak of war, a large number of supernumerary officers in all sections of the land who are in touch with the people and who would become immediately available for detail as recruiting and mustering officers and the many other capacities for which we need Regular officers at such a time. The Regular army must bear the first brunt in case of war, and to remove line officers at this time for staff duty cannot be a wise policy.

#### ORGANIZATION OF STAFFS OF MILITARY UNITS.

In determining upon the composition of the staffs of the higher units, it must be understood that no hard-and-fast rule can be laid down to govern all cases. The organization of a staff suitable for a certain unit varies with circumstances as much as any other military principle. This applies especially in case of the corps, the army and the aggregation of armies. Only the normal organization can be laid down, leaving the carrying into practice more or less to the judgment of the individual commander. In general, the larger the units and the greater the variation in the organization of the line troops composing the unit, the greater will be the variation in the composition of the staff. Again, a staff may have more than one representative from a certain department, the junior or juniors acting as assistants to the chiefs, but no staff should be unnecessarily large or cumbersome.

The composition of the staffs of the brigade and the higher units has been touched upon sufficiently in this essay to show that it should be about the same in theory as it is now in actual practice. There are only two units, the battalion and the regiment, for which a somewhat more detailed explanation is deemed necessary.

*The Battalion Staff.*—The battalion is a fighting and not ordinarily an administrative unit, and on that account the staff of the commander is limited to an adjutant. He and the sur-

geon represent the staff departments at these headquarters. As soon as the battalion becomes a detached command and an administrative unit, proper staff representatives must be created by the detail of suitable officers.

*The Regimental Staff.*—It is in the organization of the regimental staff that the greatest changes from existing conditions are recommended. Some are simply a matter of regulation by the regimental commander, while others must be provided for by legislation.

A regimental commander ordinarily is not sufficiently free from administrative details to give his best efforts to the military discipline and training of the regiment. This condition should be changed by relieving him of all those details that could be performed equally well by subordinate staff officers. In the first place, the lieutenant colonel could act as chief of staff and personally supervise the entire administrative business of the regiment. He should have immediate command of the regimental staff, which should consist of a surgeon, an adjutant, quartermaster, commissary, and paymaster, and the necessary number of enlisted men belonging to the staff. These officers should be parts of the staff departments they represent, and the soldiers, who should be enlisted on account of their technical or special knowledge, should be formed into one administrative company, to be attached as such to the regiment. The strength of this administrative company, provided for in the organization of the regiment, can be estimated to a great nicety from past experience, and should include every man not available for duty on the firing line. No one who is not acquainted from actual experience with the malicious and antiquated system of detailing soldiers on extra duty, can form a correct idea from its pernicious influence on the strength of the command. Not only the reduction of the fighting strength, but also the unnecessary waste of material should induce us to correct this matter. If a regiment escapes with less than ten per cent. of its strength on special duty, it may consider itself fortunate, and, on the other hand, if the officer to whom these men report for duty, can perform his allotted work with this uninstructed and untrained aid, it is only in spite of many disadvantages inherent in the system. This administrative com-

pany carries on its rolls all men not accounted for on the company rolls, and to its commander the staff officers apply for the men necessary for their respective departments. Similar administrative units of the requisite strength could be created for the brigade, division and corps.

*The Staff of the Brigade and the Higher Units.*—It is not deemed necessary to enumerate the composition of the staff of the brigade or of the higher military units. Ordinarily all headquarters' staffs should have a representative from each of the departments. And when the bulk of work is too great for one man, he must be given assistance. Sometimes the department need not be represented on a certain staff. In that case the services of the supernumerary can be utilized on other duties pertaining to the department. And this method should also be pursued with staff officers of discontinued commands or those existing on paper or in theory only, as is often the case with brigades (corresponding to districts) and corps (corresponding to divisions) in time of peace. And finally, the staff should have a certain number of supernumerary officers to fill the vacancies caused by detailing officers of the various staff departments on other duties, such as instructors or students at the school, those at depots, on commissions, and other services.

*Conclusion.*—In conclusion, it may be well to call attention to the following points. In the preceding pages, the duties of the various officers are referred to only when it was deemed necessary for the purpose of illustrating the details of the proposed organization.

Staff duty, its distribution and performance, would form the subject for another essay, and for this reason the discussion is limited to the subject of organization. The same remarks apply with equal force to the subject of strength of the proposed staff, and nothing definite has been laid down. While the strength of the army is a factor in deciding the organization of the staff, the actual strength of said staff is a separate question open for discussion after the organization has been decided upon.

To the casual observer it may appear that many radical changes are here proposed, but a closer inspection will show that this is not the case. The changes advocated may be divided into two heads: First, those introduced for the purpose

of putting into practice what we now have in theory, or at least what is assumed generally to be the best theory, in staff administration. Second, those introduced for the purpose of laying down on general principles, and reducing to paper a uniform system to conform to what exists now in actual practice. Those of the first class are simply matters of interior economy of the War Department, but those of the second class will require the action of the legislative branch of our Government to put into operation.

While the organization of the staff of smaller military subdivisions is practically and should practically be the same the world over, the organization of the staff for the entire military force is a question peculiar to each nation and government. On that account, the perfect staff of a modern European army, while it may serve to suggest desirable modifications, cannot be taken as an exact model on which to re-construct the staff organization of the United States army.

## THE ORGANIZATION OF A STAFF BEST ADAPTED FOR THE U. S. ARMY.

BY RUSSELL C. LANGDON, FIRST LIEUT. 3D U. S. INFANTRY.

IN order to properly discuss this question, we should start with a clear idea of what we mean by the word "staff."

Colonel Home in his "Precis of Modern Tactics" defines the staff officer as "an officer who acts as the eye and ear of his general, or other officer to whom he is attached, who conveys his orders, collects information for him, and represents him when he is absent," but besides the officers whose functions are purely these, we apply in our own service the term "staff" to those officers whose functions embrace the equipment, care and supply of troops, and in fact all "officers not in personal command of troops." (Home, p. 16.)

We see at a glance that there are two kinds of staff officers, viz.: those that comprise what might be termed the "executive staff," such as aides-de-camp, adjutants general, inspectors general and officers on special reconnaissance or similar duty; and an "administrative staff" composed of officers of the supply departments, engineer, ordnance, medical and pay officers.

Coöperation of the several parts is the primal principle of organization. A mutual understanding of each other's needs as well as of those of the service, are essential to the harmony upon which this coöperation depends. Not only should the parts of each group, as we consider them here, work together harmoniously, but the executive staff should thoroughly understand the tasks and the workings of the administrative branch in order to work out its own problems of mobilization and of strategy.

And, on the other hand, the administrative staff should be cognizant of the scope and nature of the responsibilities of the other branch in order that it can meet the demands made upon it by the necessities of the service, and above all other considerations there should not be a feeling that either branch of the staff is superior to the other, in authority or importance, but on

the contrary that they are co-equal in importance in laboring together to meet the common needs of the line and the common aims of the whole service.

Besides this harmony between the parts of the staff, there should be a more perfect understanding and a more cordial sympathy between the staff and the line than that which exists under our present system. So much has been said and written on this point that it would seem unnecessary to dwell upon it further. An interchangeability of personnel between the staff and the line similar to that proposed by our Secretary of War, would seem the only way to obtain this harmony of action and mutual understanding, but how to obtain this result without sacrificing the efficiency of a single branch either of line or staff is the vital question.

We cannot expect an officer to be a "jack of all trades." Not only must he be a military man "pure and simple," but in so far as his individuality is developed we must expect him to lean towards some particular branch of military study and of work as the one which interests him more than the others, and for which his particular personality more especially fits him, and therefore, one in which his energies and his talents would be more profitably employed than in any of the others. But some considerable period of service may be necessary in order that he can discover just which that particular branch of work may be.

A distinguished American thinker has aptly said that "every educated man should know *something* of everything and *everything* of something." Applying this aphorism to the narrower realm of our own profession alone, we may truly say that every officer of our army should know something of every branch of military work and everything of his own particular branch.

We are thus brought face to face with the proposition that service in all three branches of the line, and in the two main branches of the staff, executive and administrative, is necessary for two separate reasons, viz.: for that all-around knowledge essential to harmonious working of the several branches of the whole service, and also in order to afford every officer the opportunity to discover, or to have discovered for him, that particular branch for which he is especially fit. Knowledge of the



work of any branch of service would be purely theoretical without actual service with that branch.

As a corollary to this proposition we have this additional one, viz.: that eventually after the preliminary service in the various branches above indicated, each officer should be finally located permanently in a particular branch of service.

Bearing these two propositions in mind, let us trace the possible career of an officer under this scheme. Two years would be about the proper length of time in each arm of service in the line. For, in a less time the experience would be narrowed to particular localities, and to only a few of the many circumstances of service, whereas, a longer time in each would make the total length of service in the three arms greater than the time that could be profitably spared for the purpose in view, so at the end of six years from the time of his original entry into service, any one officer would then have had experience in each arm of service, and could then be permanently and properly assigned to that one of the three for which he is the most fitted, and in which he could serve until detailed for his tour of duty with the staff.

Let us suppose that only captains would be eligible for detail with the staff. When detailed for duty with either branch of the staff, executive or administrative, let him serve three years on this detail, and after this, two years with a company in his own branch of the line before being again detailed on staff duty. Let his second detail on the staff be on that branch with which he did not serve the first time. After three years on this second tour, he will then have served in all branches both of staff and line. Let him return to a company of his own branch of the line, there to await the decision as to whether or not he is to remain a line officer during the rest of his service, or to be permanently appointed to a place in the staff. It would be perfectly in consonance with this scheme to count service as an aide-de-camp, whether as captain or lieutenant, and service as regimental adjutant, as a tour with the executive staff; and likewise service as regimental supply officer as a tour with the administrative staff.

Before proceeding farther let us pause for a moment to consider the question, "Have we too many staff departments at

present?" This is so often a theme of discussion that its consideration here would seem imperative.

The navy is always pointed to as an example of how efficiently a consolidated supply department can work. If one department can feed, clothe and pay the men of the navy, why does it take three departments to do it in the army? To be sure, the army has the matter of transportation to deal with in addition to the others, but this alone should not cause such a difference in the number of bureaus. It may be said that each of our three departments—Quartermaster's, Subsistence and Pay—has as much business as it can handle now, and that this fact proves the necessity for three departments.

Admitting this to be the case, could not the paper work of the three bureaus be revised and consolidated? Could not the appropriations for pay, mileage and subsistence be easily handled by the same system of books and papers that now handles the nine appropriations of the Quartermaster's Department?

The financial branch of any great business corporation could solve this problem in a day and the solution would not lie on the side of multiplicity of officers.

But, the financial work of the bureaus is not their principal task. The supply of what the army wants—the things the soldier needs—is the great question and always will be. The pay, clothing, food, tentage, wagons, etc., of an army all have to be transported, generally from the same centres of business and industry, always along the same routes or lines of supply and under the care, while *en route*, of one and the same department. Why should three separate departments be called in to distribute the three kinds of necessities when one has been enough to transport them? And why should any one of them be entirely dependent upon the other for the transportation of its supplies? Yet, we cannot have three separate systems of transportation covering the same ground.

In the local situation real consolidation has been a fact generally speaking for many years. The post quartermaster is generally the commissary also, except in the regiment and at headquarters posts. The two staff departments at a post worked in harmony because both were represented by the same

man. Even in the matter of paying troops, the line officer already cognizant of the general local duties of the two supply corps, has had some experience. For several months in 1897 the troops were paid by the "envelope system" in which all the labor, except the checking of the rolls and making up of the envelopes, was performed by line officers. The line officer in the various duties that casually fall to him has proved the possibility of consolidation in the local situation.

Let us try a consolidated "supply corps" that will furnish everything except medical and ordnance stores. Each of the three departments just considered has done its work too faithfully to die out for the sake of one or both of the others. Let not the "Supply Corps" or "Supply Department" be the direct descendant of any one of them, but the real union of all three. To be sure, the number of officers in the "Supply Corps" would be greater than the number now in any one of the three departments, but it would be considerably less than the total number in all three.

A chief supply officer of any command, whether a department, a corps, or a regiment, should have one or more assistants, as necessity dictates. He could divide his duties with his assistants in such a way as to equalize labor and expedite business, one man being in control, and this division of labor and apportionment of duties could be varied to suit the changing conditions of service, the classification of responsibilities not being rigidly fixed as now.

In regard to the other staff departments as they now exist, it would seem from a consideration of their special functions that consolidation is practicable only in the case of the Adjutant General's and Inspector General's departments. A similarity in the qualifications of officers of those two departments has already been acknowledged by the War Department in the issuing of General Orders No. 1154, dated "Adjutant General's Office, August 22d, 1899." In this order not only are the qualifications for the two departments described as identical, but the board before which candidates are examined is composed of one officer from each of the two departments, together with a line officer.

It would seem that an efficient inspector should have the

same knowledge of army administration in general, and of the duties of officers of the command in particular, that the Adjutant General of that command should possess. A department formed by the consolidation of these two would require more officers than either one has now, but not necessarily as many as the total of both ; and, as in the case of the "Supply Corps" herein proposed, the chief and his assistant could more equally divide their duties than two officers of different departments.

The Medical Department could not properly be considered in any proposed change in the general staff system, owing to the peculiar character of its duties. In the same category we might also properly place the Corps of Engineers, the Ordnance Department and the Signal Corps, except that appointment to each of these branches should be made only after six years of service in the three arms of the line, as herein contemplated. Under now existing laws, two years service in the line is required before appointment into the Ordnance Department and Signal Corps. The same reasons that make this a desirable prerequisite in the case of two departments, apply with equal force to the engineers.

Modern science has such a close relationship to modern war, that it is necessary that officers of the engineers, the ordnance and the signal service should devote their whole lines to their respective branches of work, in order to keep pace with the never ceasing march of invention. Six years of line duty (two with each arm) before starting in with their scientific work, would give a good foundation of practical knowledge of the needs of the line in the way of armament, equipment and fortification, but after appointment into either of these two corps a detail with line troops for any considerable period would only result in the officer going back to his staff work just that many years behind his fellows in his knowledge of scientific research and practical invention.

With regard to the Judge Advocate General's Department a similar argument would apply, with the limitation that in the lower grades of this department, details from the line could profitably be made as a part of the general staff scheme herein proposed. At the present time we have line officers serving by

detail as acting judge advocates of departments in accordance with the provisions of a statute. The executive staff would consist of the Adjutant General's Department (the inspection service being merged with it) and the Judge Advocate General's Department.

The administrative staff would consist of the Supply Corps, Signal Corps, Engineers, Ordnance, and Medical Corps.

Let the Judge Advocate General's Department be organized as at present, the lowest permanent grade (major) being filled by selection from those captains of the line who have passed through the two periods of staff service as herein proposed; this selection to be made by a board of officers under regulations to be established by the Secretary of War. But the lowest grade of this department (captain) should be filled by detail for three years from the captains of the line.

The Adjutant General's Department should be composed entirely of officers detailed in each grade from the corresponding grades of the line, after selection by boards composed of line officers. Details in this department should be limited to three years in the grades of captain and major, and four years in the higher grades. Not only should this department embrace the functions of the Adjutant General's and Inspector General's departments as at present organized, but it should closely resemble the European "General Staff." The collection of military information of all kinds, the preparation of the general schemes for recruitment, equipment, and mobilization, and the making of strategic plans in outline, should be the principal part of its professional work. Duty of this nature cannot be satisfactorily performed by officers who spend their entire lives in their offices, away from the personal control of troops, and out of touch with that great human mechanism, whose motions they indirectly control, viz.: the *army* proper, which we call the "line."

Let the personnel of the Supply Corps be permanent above the grade of captain; that is, let the grade of major in the Supply Corps be filled by selection from those captains of the line who have passed through the two periods of staff duty (as before described) the selection to be made by a board of officers under proper regulations. But let the lowest grade of the Sup-

ply Corps be that of captain, these officers serving by detail for three years.

Let the Engineers, Ordnance and Signal Corps be organized as the Ordnance and Signal Corps are at present (first lieutenant being the lowest grade) with this change that preliminary service should be two years in each arm of the line (six years altogether).

A change in the system of promotion of lieutenants of the line would have to be made so as to place all second lieutenants on the same list for promotion, since as a rule a lieutenant would probably not get his permanent assignment until after his promotion to the grade of first lieutenant.

It would seem that the larger proportion of line officers above the grade of first lieutenant as herein contemplated would insure under normal peace conditions a lower average age for captains than that of the present time, which is something the army desires and needs.

Systems of examination for appointments and for promotion could properly be considered here only in outline, since they can be devised in detail only after actual experience with a given set of conditions covering a considerable period of time. It would be supposed, of course, that examinations on promotion or selection would form a part of every staff system. But they should not be so arranged as to create the possibility of a line officer never being on staff duty. In fact, he should be compelled to serve both his tours of staff duty as well as the three tours of line duty contemplated, and upon being found unfit to perform the duties of any one of these branches, whether of line or staff, he should be wholly retired from the service. Our Regular army in time of peace should contain no officer unfit to perform any variety of military duty that can reasonably be expected of him.

The matter of the establishment of a "Staff College" or "War College" is a detail of War Department policy which would have to be worked out by the Secretary of War with conditions as he finds them. To create such an institution by statute and to make it part of a general staff system might result in embarrassing the War Department at a time when a great public emergency would cause the discontinuance of all



army schools. Like our service schools, its existence would depend upon conditions out of the control of Congress. There could be no school without students, and who knows but that in the "twinkling of an eye," as the result of some possible crisis, its entire student body would find itself scattered over the face of a foreign continent. There can be no question of the utility, nay, the necessity of such a school, but it should be an elastic part of an army system controlled by the Secretary of War; not a rigid part of the machine created by statute.

Now, let us briefly review the general workings of the system as outlined here, by taking a supposed case. Lieut. Blank enters the service as a second lieutenant, it may be from the Military Academy, or it may be after competitive examination from the ranks of the army. He happens to be assigned to the cavalry at first, either because he has chosen that branch upon graduation or because he has served in it as an enlisted soldier. After two years' service as a second lieutenant of cavalry, he is examined upon his theoretical and practical knowledge of the duties of the cavalry arm and the result of this examination is noted upon his efficiency record. He is then assigned to an infantry regiment, changes his stripes from yellow to white and serves as the subaltern of an infantry company. His commission remains dated from his original entry into service as a second lieutenant of the army. After two years in the infantry, he is examined with regard to his knowledge of that arm and then passes to the artillery. In this he serves both with field artillery and with sea-coast artillery, being examined at different stages of his artillery service covering the various sorts of work that he has been called upon to study. It is probable that at some time during these six years he is promoted to a first lieutenant, but this does not alter the continuity of the course of service which he pursues. Upon passing his examination at the close of his artillery service, he is then ready to be permanently assigned to the arm of service for which he is best fitted.

Once each year a Board of Officers should be convened at the headquarters of the army to permanently assign those lieutenants who have completed six years of service under this plan. This Board should take into consideration:



1st. The records of examinations of the officers in the various arms.

2d. The reports of his various company, battalion and regimental commanders in the several arms.

3d. The statement of the officer himself as to what branch of service he considers himself best fitted for.

Suppose Lieutenant Blank has discovered that of all three arms of service he prefers the infantry for his permanent assignment. If the Board considers that his record justifies it and believes that it can be done without injustice to other members of the class who have superior claims, he is assigned permanently to the infantry. Suppose he had failed to pass his examination at any one of the stages above described. Reëxamination after a reasonable time should be allowed him and then a second failure would be cause for dropping him from the service by resignation, or as "wholly retired."

When a vacancy occurs among the captains of infantry by death, promotion or otherwise, Lieutenant Blank, should he be the senior first lieutenant of infantry, would receive the consequent promotion upon passing the necessary examination. Some time after he becomes a captain Blank is detailed for duty with the administrative staff—the Supply Corps. His name is no longer barred on the returns of an infantry regiment, but is transferred to the list of unassigned captains of infantry still remaining in the line of promotion. After three years' service in this department, he is examined upon his knowledge of its duties and returns to his former duties as an infantry captain. At least two years of regimental duty must follow before he is again detailed on staff duty. After awhile his turn comes for detail with the executive staff. Perhaps he is selected for duty in the Judge Advocate General's Department. He serves three years in this department and then returns again to his work in the infantry, being examined at the close of the detail. Perhaps instead of the Judge Advocate General's Department he may have been detailed with the Adjutant General's Department, or it may be that a tour as supply officer of his regiment has given him credit for a detail with the administrative staff; or again, a tour as regimental adjutant may have given him credit for a tour with the executive staff.

Some time after he has had his tour of duty with the executive staff, a vacancy among the majors of the Judge Advocate General's Department occurs and is filled by selection from captains of the line, as previously described. Should he be appointed to this vacancy, he leaves the infantry permanently and serves in the law department of the executive staff until his retirement from the service. But should he not be appointed to this vacancy, he remains an infantry officer for the rest of his army career, or until appointed a general officer. Perhaps at different times during his service as a field officer he may serve occasional details in the Adjutant General's Department, but at the close of each such tour he returns to his infantry duties. Perhaps as a major he may serve as military attaché at some foreign capital; or it may be that as a lieutenant colonel he is on duty for four years as Adjutant General of a Department. But all this time his name is carried on the lineal list of infantry officers and he is promoted when his turn comes just as he would be if on duty with a regiment.

No rule could be followed as to the order in which the preliminary service of young officers in the three arms of service could be had. A third of each year's class of graduates or appointees would have to start in the infantry, a third in the cavalry, and the remainder in the artillery. If a particular arm were always taken first and another always next, etc., one arm of service would have the burden of all the inexperienced officers.

To provide for the extra line officers required by this system of staff details it would be necessary to have additional captains, majors, lieutenant colonels, and colonels in each arm of the line. In order to equalize promotions in the three arms the proportion of additional officers of each grade in each arm should be the same.

How to change from our present system to the one herein proposed is a problem which we will now briefly consider.

Let the officers now belonging to the several staff corps, as at present organized, remain in their respective corps and be promoted under the laws now existing. No change will be needed in the organization of the Judge Advocate General's Department, the Ordnance Department, or the Signal Corps.

In the engineers the grade of second lieutenant should be abolished by the promotion of all second lieutenants now in the corps to the grade of first lieutenant, thereafter all vacancies in the grade of first lieutenant in the Ordnance, Engineer and Signal Corps to be filled by selection at the end of the preliminary six years of line service upon passing the necessary examinations.

No new appointments should be made in the Inspector General's Department. In time, therefore, this department will drop out. The Adjutant General's Department, as at present organized, could be allowed to disappear in the same way. As fast as appointments to the Adjutant General's Department under the new system became necessary to supply the places of officers dropping out in the present establishment, additional majors, etc., in the line should be commissioned to admit of the necessary details.

Let no new appointments be made in the Quartermaster's, Subsistence and Pay departments. Let these three departments be consolidated into one, to be known as the Supply Corps; but let the officers be promoted in accordance with existing law, as though the three departments still continued. In other words, to not affect in any way the promotion or chances of promotion of any officer, but to permit the original departments to remain for the purpose of promotion only. Officers now in these corps should retain the same duties as at present, there being no consolidation of functions in the case of any officer now in any one of these three departments, unless he applies for it. But let the systems of property and money accountability, blank forms, routine of work, etc., be so consolidated as to form but one system. Let the senior of the three brigadier generals act as chief of the supply corps to exercise a general authority over all three components of the consolidated supply corps only when such supervision is necessary.

As fast as details of captains in the supply corps under the new plan becomes necessary, additional captains may be commissioned in the line (by promotion from the first lieutenants under existing law) in order to allow for the number needed for staff details.

When the total number of officers in the supply corps above

the grade of captain falls to just below the figure regarded as necessary for the permanent corps, the appointment of majors in the permanent corps under the proposed regulations should be commenced.

Some years will be necessary, of course, for the gradual change from one system to another. A radical or sudden change is impossible under present conditions, as it is bound to be opposed by one or more of the present staff departments. The officers who entered these departments did so with a view to the duties they desired to perform and the chances of promotion which these departments held out to them. It would be grossly unjust to any one of these officers to deprive him of these chances of promotion or to change the character of his work against his will.

Under the plan herein proposed, by having permanent officers in the supply corps above the grade of captain we have experienced and trained officers for the highly important and responsible positions now filled by our depot quartermaster, purchasing commissaries, superintendents of the transport service, constructing quartermasters, etc.

A general officer, who while a line officer has passed through the various stages of line and staff service herein proposed, would have a splendid equipment for the responsibilities of command over all branches of service, both line and staff. He would possess the broad vision of affairs that we expect in a general officer, but which is obtainable only after years of intimate acquaintance with all branches of the service.

## Translations and Reprints.

### THE BOER WAR.

*(From the Army and Navy Gazette.)*

#### THE SOUTH AFRICAN SITUATION.

THE country has had two very serious shocks this week. One was the discovery of another dastardly plot against the life of Lord Roberts at Johannesburg. The disquieting fact was reported to the War Office by the Commander-in-chief himself, in a despatch of characteristic brevity. Ten men, foreigners and anarchists, have been arrested for complicity in the intended crime, which was of a diabolical nature, the intention of the conspirators having been to explode a dynamite bomb on the 18th ult. during divine service in the church attended by Lord Roberts. For a considerable time Johannesburg has enjoyed the unenviable notoriety of attracting the adventurers and doubtful characters of the world, and so long as affairs in South Africa continue in their present unsettled state such men will constitute a danger to be reckoned with. This projected crime, providentially averted, is another sign of the distinctly lower level to which the struggle now desolating the country has sunk. The Boers may advance as an excuse that this new plot against Lord Roberts was the conception of foreigners. We should be prompt to accord them such credit as may be their due in connection with this particular incident, but we cannot shut our eyes to the unpleasant fact that Lord Roberts has on more occasions than one reported distinct cases of deliberate murder committed by the Boers in the field. Even so recently as Monday he informed the War Office that Lieutenant Neumeyer, of the Constabulary, when unarmed, was brutally murdered by Boers in the south-east of the Orange River Colony. Such criminal acts, even more than acts of treachery, may have most baneful consequences, as tending to

exasperate our men and to lead to deeds of reprisals, which all good soldiers would deplore and condemn.

The second shock is suggestive of the worst periods of the war, when "regrettable incidents," the loss of places, the surrender of troops, and other humiliations were by no means infrequent. Now, once again, the enterprising De Wet has scored a triumph after his own peculiar fashion. With the genius of the true soldier, he has contrived to concentrate superior against inferior numbers, and, bringing a force of 2500 against a garrison of not a fifth his strength, has compelled it to lay down its arms. The capture of Dewetsdorp on the 23d is another, and probably not the latest success to his credit. We have no further knowledge of the facts than that the strength of the garrison was some 400, and that the casualties had been severe. A later report, however, states that De Wet had set all his prisoners free, and was heading in all haste to the south or southwest, being hotly pursued by General Charles Knox's command. Knox had already reoccupied Dewetsdorp, and it may fairly be said that the incident, however painful, is closed. If only he has been able to bring De Wet to action—a somewhat problematical assumption—the tables may yet be turned. It seems certain that De Wet's aim was to join forces with Commandant Hertzog somewhere between Fauresmith and the Orange River, but Settle's fine fight at Luckoff has disposed very summarily of Hertzog.

The general disposition of our active columns, according to recent reports, may be briefly outlined as follows:—General Charles Knox moving south towards the Orange River in pursuit of De Wet; General Settle with Sir C. Parsons not far from Fauresmith and lending a hand to Knox. General Smith-Dorrien on the 20th ult. had returned to Belfast from Dulstroom. Colonels Plumer and Hickman had then arrived at Pretoria from Rustenburg, and Colonel Plumer has since successfully fought the enemy near De Wagen Drift. General Paget has moved out from Pretoria to place garrisons at Rietfontein and Mosilikatze's Nek. All garrisons in the neighborhood of the capital are being reinforced. General French has been clearing the approaches to Johannesburg of "snipers." General Clements, after shelling a laager near Reekpoort, in

spite of the opposition of Delarey, reached Krugersdorp on Monday, with cattle and prisoners. Of Lord Methuen there has been no recent news, but Colonel Douglas was reported to be near Klerksdorp, General Hart to be moving along the Gatsrand, General Wynne to be near Heidelberg, and Colonel Bewicke-Copley to have been smartly engaged near Greylingstad. Passing into the Orange River Colony, we find Colonel White guarding the western border; General Bruce-Hamilton, from Kroonstad, searching the country round Lindley, Heilbron, and Frankfort; Colonel De Lisle near Kroonstad; and General Boyes, of Sir A. Rundle's force, at Harrismith, after sweeping the colony towards Vrede and Reitz. General Campbell, on the road from Harrismith to Bethlehem, had a smart engagement on the 23d ult.

We have no wish to be pessimistic. The return of peace and prosperity in South Africa is assuredly only a matter of time, but the fact must not be blinked that when the Commander-in-chief returns to England abundant work will remain for Lord Kitchener to accomplish before the new colonies can be said to enjoy a state of peace. Meanwhile, the general situation is not satisfactory, and were sedition again to raise its head dangerously south of the Orange River it might become very decidedly worse. By the prowess of our troops, and the able strategy of our generals, we have conquered and annexed the Boer Republics, but their subjugation is yet far from complete. The remnants of the beaten Boer armies, aggregating, it is said, some 12,000 men, still keep the field in bands varying from, say, 50 to 1000 strong. These have deliberately adopted guerilla tactics in order to harass the British, and to maintain the semblance of organized resistance in the hope thereby of supporting the efforts of Mr. Kruger in Europe. Much success has undoubtedly attended this plan of campaign, since the Boer leaders have been thus enabled to keep together sufficient numbers, and to make their presence sufficiently formidable to establish a claim to be still accorded the status of belligerents.

Over and above the Dewetsdorp affair, minor incidents continue to be abundant in all quarters. These, as a rule, result in the dispersal of the enemy, who, when retiring, leave in our hands cattle, horses, foodstuffs, and a few prisoners. As the few



prisoners taken are replaced by commandeering, and the lost animals and stores by looting the farms of loyal men, no very serious injury is done to the guerrilla bands. So long as ammunition—now the very breath of life to the Boers—holds out, the enemy will indefinitely prolong a struggle which is rapidly desolating the unhappy country. Much ammunition is believed to have been buried. For this a thorough search should be made, while at the same time illicit supplies through the various ports should be rigorously barred. Well-founded suspicion has recently fallen on both Lourenço Marques and Port Elizabeth as being bases of supply.

#### GAME TO THE LAST.

Another shock has befallen us with all the dramatic force of the unexpected. The surrender of Dewetsdorp a few weeks back was, we hoped, to end the regrettable incidents that have so often characterized the campaign. Yesterday came the news of a serious engagement, which may not be quite a reverse, but which undoubtedly obliged General Clements to retreat with severe losses in officers and men. The situation at the time of writing is not clearly defined, but we know that Clements, holding Nootgedacht, on the Megaliesberg mountains, west of Pretoria, was fiercely attacked by Delarey, reinforced by Boyer, and driven from his position. He retreated on Heckport, a dozen miles to the south, but seems to have sacrificed four companies of the Northumberland—reported missing, some 200 strong. Broadwood, who was to the north of the mountains, seven miles from Clements, with his mounted brigade, hurried forward to assist, but so far the result of his coöperation is not known. Delarey has always had the reputation of being one of the most intelligent and skillful of the Boer leaders, and in this affair he has certainly proved his capacity for war. The gathering together of a superior force, the direction of his attack, and the determination with which it was pressed, must be frankly acknowledged even though success was achieved at our expense. Meanwhile, De Wet and ex-President Steyn, after heavy losses in men and guns and the dispersal of their force at Bothaville on the 6th ult., undertook a fresh raid to the south over the Caledon and Orange rivers, with Cape Colony as their objective. Success, moreover, would most probably have

crowned the daring effort had not British troops held the drifts over the Orange River, and caused the baffled chief of the raiding column, defeated in his object, to turn and change the direction of his march to the northeast. The latest intelligence on the subject from Lord Kitchener showed that the chase of De Wet still continued, Knox having reported on Tuesday from Helvetia, north of Smithfield and the Caledon River, that he was engaged in a running fight with De Wet's force, which was heading, apparently, for Reddersburg, thirty miles to the northwest, where a column was ready to coöperate against it.

The whole story of De Wet's last raid reads like a chapter from romance, and although the hero is our irreconcilable foe, we cannot withhold our admiration of his boldness, energy, and resource. The time selected for his descent southwards was well chosen. With discontent growing among the Cape Colony Dutch, whose representative congress was about to meet at Worcester, and with Mr. Kruger in Europe anxiously looking for the support that any real success in the field might give him, a raid across the frontier of Cape Colony, led by so redoubtable a chief, would have been acclaimed as a signal victory for the Boer arms, and might have been the precursor of untold trouble. For the present this has happily been averted, thanks to the magnificent efforts of General Knox's columns and the effective holding of the southern drifts at which the guards were posted. But the line of the great border river from Basutoland to Orange River Station is not less than 250 miles in extent, and a fresh attempt to force a passage to the south at some point on the western side of the central railway is still not impossible. The drifts are numerous, and a considerable force must be required to effectually guard them all. It is not only necessary to maintain with unabated vigor the pursuit of De Wet until he be forced to stand again at bay and fight, thus affording the only chance of his capture, but also to block the passages of the rivers that cross his line of march, so that his raids for fresh supplies may be cut short and his resources destroyed. Had it been possible to guard the drifts over the Caledon, after its passage south by De Wet at Karreepoort, his subsequent escape to the northwest across the same river would have been prevented, and, shut up within the

triangle bounded by the Caledon, the Orange River, and the Basutoland border, his capture would have become a matter more safe to prophecy about than has hitherto been the case. As it was, the difficulties surrounding General Knox's task were enormous. His force, it is true, is divisible into four mobile columns for independent movement in any direction, but with an enemy still more mobile who, during any night, favored perhaps by storm and torrential rain, can double back on his line of march, as De Wet has repeatedly done, the dispositions of the pursuing, and—as we are accustomed to read—surrounding columns, must be constantly disarranged and rendered abortive.

While the British forces in the Transvaal and Orange River Colonies have been standing to arms at their posts, or following the trail of the flying Boers, the veteran chief who has so lately bidden the army farewell, in words that will long be remembered, has been the recipient of fresh honors at Cape Town. Lord Roberts regretted that he was unable to remain in South Africa until peace could be formally declared, but he was satisfied that under the able guidance of Lord Kitchener, in whose judgment and military skill he had implicit confidence, the guerrilla warfare still causing trouble would soon terminate. We have pleasure in recording this expression of unqualified confidence in the distinguished officer to whom Lord Roberts has handed over the supreme command in South Africa, because there has been a disposition shown by certain writers to attribute to the pacificator of the Soudan qualities of sternness which, as soon as his hands were freed, were expected to bear ample fruit in a ruthless and desolating crusade to crush out the guerrilla bands. We do not share this view, and believe that we are justified by Lord Roberts' words in rejecting such an estimate of Lord Kitchener's character.

Lord Roberts left Cape Town on Tuesday homeward-bound, and a grateful country is already preparing a fitting welcome for him. The great work, which he reminded his audience at Cape Town he set out to do some twenty years ago, when a mistaken policy suddenly stayed his hand, has at length been nearly accomplished. That work was "to dispel, by force of arms if necessary, the aspirations of the Boers to render themselves in-

dependent of British control." The issue has now been fought out, with the result that, after a prolonged stubborn and valorous resistance, the Republics have been annexed to the empire of the Queen. We can well understand Lord Roberts' pride at having been the first to command "an Imperial Army," and his satisfaction at the far-reaching results of the war, which, by tapping the military resources of the colonies, has shown the enormous power possessed by a consolidated empire such as ours. Henceforth, as Lord Roberts said, the English and the Dutch must work together irrespective of race, if they wish the country to flourish.

#### THE ENEMY IN CAPE COLONY.

The disquieting news that the Orange River had been successfully crossed by the Boers at two points widely apart was received from Lord Kitchener on Thursday. One point of passage lay at Rhenoster Hoek, to the west of Odendalstroom, the other in the vicinity of Sand Drift, to the west of Philipolis and the railway, from which district we suggested last week that such an attempt was not improbable. The eastern commando, numbering from 500 to 800, after gaining the south bank at Rhenoster and skirting Venterstadt, was moving towards Steynsburg on Tuesday, closely followed by mounted troops. The western commando, of which the strength has not been stated, was apparently making for the Colesburg district, and was also being pursued. Lord Kitchener had besides despatched a considerable body of mounted men with the object, if possible, of surrounding the raiding bands, and a mixed force of 1000 men was reported from Cape Town to have been sent north to coöperate. The want of a sufficient force of trained mounted troops is much felt in the Colony, and the situation is considered grave.

The Queen, most opportunely, and with a deep realization of the needs of her army, in conveying to the Auxiliary Forces and the Colonial troops her grateful appreciation of their signal services during the past year in South Africa and elsewhere, has spoken and informed them that she relies on those still abroad to continue to use their best efforts in aid of her Regular army, trusting that the day may not be far distant when she may welcome their return home. This expression of her Ma-

jesty's reliance on her subjects, coupled with the decision to postpone the projected public thanksgiving on Lord Roberts' return as being somewhat premature, must remind the nation that serious work still remains to be done in the field, and that the resources of the Regular army are insufficient at the present time to replace the Auxiliary Forces if withdrawn from active service. The army under Lord Kitchener's command now numbers some 210,000 men, having recently been somewhat hastily reduced and appreciably weakened by the withdrawal of a considerable part of the Canadian and Australian contingent, as well as Lumsden's Horse, the City Imperial Volunteers, and some local corps, all of whom rendered most admirable and indispensable service during Lord Roberts' and Sir Redvers Buller's great forward movements. Of the field force now in South Africa, no less than 67,400 consisted, on the 7th inst., of Auxiliary and Colonial troops, according to a tabular statement issued by the War Office. Unfortunately, and very possibly as a consequence, a decided increase in the enemy's activity, culminating in the invasion of Cape Colony, has synchronized with the reduction of the field army. The difficulty of the task committed to Lord Kitchener has thus been augmented, and until he has been furnished with such additions to his mounted force as he may require we shall not expect to hear of much real progress being made. Surveying the entire theatre of war, and accepting the statement that the guerrilla forces of the enemy number approximately from 12,000 to 15,000 men, it is no exaggeration to say that from 40,000 to 50,000 mounted riflemen, with a very large reserve of seasoned horses, will not be too much for their effectual and final suppression, leaving the dismounted troops and heavy field artillery to hold the fortified strategic points and the lines of communication.

De Wet, as the world knows, has again escaped, and this time by an act of conspicuous daring in charging with part of his force—according to the received accounts—through the British cordon near Thaba N'chu. By the splendid exertions of General C. Knox and his pursuing columns, De Wet himself was headed off and driven north from Orange River, but his bold scheme for the invasion of Cape Colony has nevertheless, as we have noticed above, succeeded in part, through his

adroitness in dividing his forces when hotly pursued near Rouxville, and leaving one part in the south while he escaped north with the remainder. By this skilful strategical move, which savors much of stratagem so dear to the Boers, he drew the bulk of the pursuers after himself, and uncovered the approaches to the Orange River for his lieutenant's advance.

Whether it be correct to call the affair at Nooitgedacht in the Megaliesberg on the 13th inst. a disaster or not may be a moot point. It certainly was a reverse, and a serious one, although redeemed to some extent by the heroic valor of the troops. In disasters, reverses, and surprises during the war many thousands of our men have been captured, their arms and unexpended ammunition being appropriated and used against us by the enemy. As concerns General Clements' defeat we have now sufficient data for criticism, and it would appear to rank amongst the most unfortunate, to use a mild word, that we have suffered. The key of his position, which also commanded his camps, was insufficiently fortified, if at all. The four companies of the 2d Batn. Northumberland Fusiliers who held it were posted, according to a telegram from the *Standard's* correspondent, dated the 14th inst., in the centre of a depression, which reminds one of the cup-shaped depression in which our men were caught on Majuba Hill. This post was occupied by about 600 men, and Delarey was known to have a superior force close at hand, but it was not known that by a forced night march some 3000 more had come from Warmbaths, and were upon the ground ready to commence an assault at dawn. General Broadwood, only seven miles off, was apparently out of touch, and rendered no assistance. Despite the inequality in numbers and the failure to reinforce it when first assaulted, the post on the hill might have held its own until reinforcements arrived had there been an adequate reserve of ammunition. As it was, an engagement lasting only three hours sufficed to exhaust the supply, leaving the men on the hill defenseless, and the camps of General Clements and Colonel Legge on the lower ground untenable. The operation, so far as the Boers are concerned, was a signal success, and we must admit that both in strategy and tactics we were out-generalled. Lord Kitchener is credited with a new plan for the subjugation of the guerrilla

bands. We have no doubt that he, as an Engineer officer, will direct the effective fortifying of all posts held on lines of communication; also that ample supplies of ammunition and food be laid in, and that water-sources, covered by the fire of the posts, be secured within reach of the garrisons.

Notwithstanding recent untoward events, we would not convey the impression that we are losing ground. The growing activity of the enemy is largely due to the desperate straits in which they find themselves through want of necessaries, food and clothing. Their ammunition supplies are running short; their waste in horseflesh is very great; and their actual losses in killed and wounded in all the recent engagements, and notably at Vryheid and Thaba N'Chu, have largely exceeded those of the British. To render success more probable and profitable their commanders now act more in concert and in concentrated bodies, paying less attention to small affairs, such as raids on the lines of railway, which, as a consequence, are left more open for both military and civil traffic. There are still two chief requirements, namely, ample reinforcements at the front and unlimited patience at home.



## THE NEW MAGNANIMITY.

BY C. DE THIERRY.

*(From the United Service Magazine.)*

THE abandonment of the Transvaal in 1880 was one of the most reckless acts in our history. It was the result of obvious lack of foresight, justice, and common sense, together with secret cowardice and party subservience. In the language of the canting politician it was described as the result of magnanimity, and this the rank and file of the Government's following accepted almost as an inspired interpretation. The simple Boer was not so easily deluded. He never mistook the retrocession for anything but weakness. The Transvaal was his, not because England was generous, but because she was afraid of his military strength.

But this is an old story, whose sequel is being written in letters of blood. Nevertheless, the lesson has not yet been taken to heart by the people of England. In the bright light of subsequent events they see before them the terrible blunder of 1880 in true perspective, but with a curious evasion of responsibility, they lay the whole weight of it on the memory of Mr. Gladstone. In a self-governing country such as ours, the acts of the Government are almost invariably in harmony with the temper of a majority of the people, and that the retrocession of the Transvaal was in harmony with the temper of a majority of the people is beyond question. In other words, the nation deliberately chose a leader who represented its sentimentalism, rather than the leader which represented its sober sense; and so the South African policy of Mr. Gladstone, like the American policy of Lord North, while discreditable to the statesman who fathered it, cannot be dissociated from national responsibility. That this has not been emphasized as it should have been during the past few years is perhaps due to the fact that the chief members of Lord Salisbury's Cabinet, Conservative and Liberal Unionist, either share in the disgrace of the retrocession, or in the abandonment of Sir Bartle Frere, which preceded it.

Twenty years have come and gone since then, and we are as far from a true perception of the source of our blunder as we

were then. It was committed, not because Mr. Gladstone was more the demagogue than the statesman, but because the superficial teaching of the Manchester School, tricked out in the philosophy of Mill, had taken hold of the national mind. The conditions of life were to adapt themselves to prove the truth of a theory rather than the theory to square with the conditions of life, and it was taken for granted that the world was as material and colorless as the Manchester School conceived it to be. The fundamental principles of existence, based on human nature, being disagreeable, were ignored. England's only aim was supposed to be the pursuit of trade, to the success of which peace was essential. Therefore war was a crime, and, to avoid foreign complications, which might result in it, the doctrine of non-intervention was evolved. The peoples of the world were not our rivals, but our brothers; therefore when a dispute between this country and another came to a head, determined action on our part was held to be provocative of war, the accursed thing to any nation calling itself civilized. To prevent such a catastrophe emotional folk got into the habit of invariably taking the part of any people which had a quarrel with ourselves, and in our intercourse with the world approved of no attitude but that of Uriah Heep. Surrender, scuttle, dishonor, and pusillanimity, were but prudence when the choice lay between war and peace; and so with the rank growth of materialism flourished the sickliest cosmopolitanism, which ever took hold of the wits of men.

One of its most deadly effects was the retrocession of the Transvaal. The Boers, who had invited annexation when they were bankrupt and in danger from the victorious Sekukuni and the powerful Cetywayo, rose in rebellion when their affairs were put in order and their enemies crushed by our arms. To the majority of the English people, whose ears were tickled by the sophistries of interested politicians, however, they appeared as a simple pastoral people, who "only wanted to be free." To make war on them would, therefore, lay this country open to the charge of "bloodguiltiness," and alienate the Dutch in the Old Colony. The Transvaal was not worth such sacrifices. Hence her Majesty's Government, forgetting their duty to the loyalists and the natives, the honor of England, and the claims

of justice, negotiated terms of peace with rebels in the field. The result was twenty years of hatred, which culminated in the present disastrous war.

By bitter experience, then, the people of England have learned that Mr. Gladstone's South African policy in 1880-81 was folly; but instead of seeing in it the result of their own sentimentalism, they blame it as the source of all our subsequent troubles. If this were so the history of the past few years would show a return to common sense in our dealings with the Boers, whereas it shows nothing of the kind. The humiliations of the past twenty years have taught us, not that sentimentalism is the road to Imperial ruin, but that a particular effect of it, the retrocession of the Transvaal, was a monumental blunder. So while the one is never likely to be repeated, the other sways us continuously.

The proof of it is our attitude towards the Boers during the six months preceding the war, and since it broke out. We moulded our policy in defiance of facts, experience, and common sense. With the same obstinacy our manufacturers show in trade, we held to the view that Mr. Kruger and his Hollanders would see eye to eye with ourselves. We were persuaded that the Transvaal was as anxious as her Majesty's Government to avert war. We were deluded into believing that, at the worst, we should have to fight a corrupt oligarchy rather than a united people. Sentimentalism, too, survived the shock of the Boer ultimatum and the cruelty which distinguished the expulsion of the Rand population, the invasion of Natal, and the subsequent annexations of British territory. We began the war as hopelessly blind to the true character of the enemy as though we were in South Africa for the first time. A century's bitter experience had taught us absolutely nothing.

The very fact that the Boers declared war and invaded British territory pointed to the possibility of a severe struggle. They were not fighting for independence, as they asserted, but for dominion. Nevertheless we accepted their word as though it had a value equal to our own, and opened the campaign as though Boers and Dutch had no sympathy with one another. Even more fatal was our inability to realize that, while we had no dislike to the enemy, their hatred and contempt for us as a

nation almost amounted to mania. Hence our anxiety for a speedy termination of the campaign, a strict observance of the rules of civilized warfare, and a good understanding with the Dutch. Unfortunately our sentimentalism had rendered the first impossible by permitting us to drift into war totally unprepared; the second placed us at a disadvantage because the other side preferred the military usages of barbarism; the third was unattainable while the Boers remained in the field. These three considerations have marred the whole conduct of the campaign from the beginning; they have produced a political situation in the Cape Colony so full of danger that it is without precedent in our Colonial history. To find a parallel for it one must go to Ireland.

The root of the matter is an aversion to war, which is supposed to be a sign of the highest civilization. As this same civilization has been largely evolved by the agency of war, the attitude of mankind is the not very lofty one of despising the means by which it has risen. If men's dislike to war were a growth founded on their increasing unselfishness, self-control, and disinterested love of justice, it would be admirable; but as it has a mixed origin in interest, a morbid sensibility to suffering, and a narrow theory of life, it is merely foolish. The only way to secure the world's peace is to cleanse the heart of man from all unrighteousness, which is impossible. That is to say, war will cease when human beings are all angels. It is not evil, as the peace-at-any-price people would have us believe, but a consequence of evil. Hence the crusade against war is directed at an effect rather than a cause, and is, therefore, doomed to failure. Unhappily the average Englishman's view is a colorless mean between two extremes. He is dimly conscious that war is one of the great forces in the evolution of civilization, and without it the life of nations tends to stagnation, artificiality, and materialism; but, while its fruits are noble, they ripen under the influence of death, disease, destruction, and horrors untold, and to him, enervated by ease and luxury, these appear more terrible than dishonor, injustice, or wrong. The sophist, too, has his ear, and he readily believes that the fighting man is a survivor of the bad old times; that patriotism is synonymous with Jingo; that a determination to

preserve England's dignity and interests at the point of the sword is pure savagery. In other countries enthusiasts preach the same doctrines, but they have never been able to convert the educated classes, or to sway the national policy. It is impossible to dream of universal peace with a ring of foes on the frontier, and to act as though war were a relic of mediævalism when it is the haunting fear of the present. England, with the danger of invasion remote, and the "silver streak" between her and dangerous rivals, alone could afford to indulge in an orgie of sentimentalism without paying for it in a national catastrophe. Until the outbreak of the South African War it was the British Empire, which paid for the sentimentalism of England. Perhaps this accounts for its strength. It is always easy to deal with foreign nations on the loftiest principles of humanity at other people's expense.

Since the retrocession of the Transvaal, Englishmen have had leisure to discover that the easy road is not necessarily the safest. Magnanimity, which once sounded so pleasantly in their ears, is now a word of evil omen, and no statesman, who valued his reputation, would dare to use it as indicating a policy. But, unfortunately, the spirit which invested it with a tragic significance is not yet dead. We entered the South African War of 1899-1900 with the same lack of common sense, which led us to scuttle out of the Transvaal in 1880-81 before we had vindicated the Queen's supremacy. Our idea was that, in these civilized times, fighting is an anomaly, and with such a small state as the Transvaal it would resolve itself into a picnic. The campaign was to be conducted in a nice respectable fashion, so as to save the bodies of the combatants in the field, and the nerves of people at home. Why, in these circumstances, there should be war at all we did not pause to consider. All we wanted was the restoration of our lost military prestige in South Africa, and guarantees for good government in the Transvaal. That the other people would resist to the death we only realized after a year's fighting. A war, in which cheap glory and solid advantages may be won without hurting anybody, is the dream of self-indulgent ignorance. The very fact that two nations invoke the aid of the god of battles is proof sufficient that all other means of settling their differences have

been exhausted; for however frivolous the pretext on which war is declared the causes almost invariably lie at the very heart of things. It was so in the present struggle. While the wrongs of the Uitlanders brought matters to a crisis, the real issue between ourselves and the Boers could never be mistaken by any one who chose to see it; should the territories south of the Zambesi be English or should they be Dutch. In other words, England in South Africa fought for existence.

This was recognized everywhere in the Empire but in the mother country. So little did she realize the true state of affairs that she insisted on war and humanity walking hand-in-hand throughout the campaign. When the lion lies down with the lamb this will be possible, because then the strife of nations will have ceased; as things are it is an unattainable ideal. Humane war is a contradiction in terms. When men enter on a life-and-death struggle in these days all the resources of Christianity and civilization have been exhausted, and self-preservation calls into play the fighting instinct, one of the strongest instincts of our nature. That is to say we seek the arbitrament of war, and as long as the passions of mankind sway the policy of nations and the machinery for settling international differences is worked by compromise rather than by justice, we will continue to do it. War is the only method of securing a judgment which is irrevocable; and so it is the only method of adjusting an international question in which the national existence is involved.

In the very nature of things war must be cruel. It is a surgical operation on the life of a nation without anæsthetics. To perform it so as to save pain, and the ghastly details necessary to its success, is merely a refinement of cruelty for prolonging the agony. Nevertheless this is what we demanded in the South African War. Instead of serving the cause of humanity, as we fondly imagined, we were merely indulging our own morbid sensibilities. Iron justice and a settled purpose are the true servants of mercy in war, humanity is as weak as it is capricious. Cruel as war is, it was rendered yet more cruel by yoking it with peace.

This is borne out by the history of the campaign. In spite of daily and hourly evidence of his real character we have per-



sisted in treating the Boer as a chivalrous gentleman. It is an old failing of ours to take for granted that, in peace-time, England's rivals are victims to sentimentalism with ourselves, and, in war-time, endowed with British generosity. Such an attitude of mind, not only tends to weakness in diplomacy but in the conduct of a campaign. A knowledge of men is essential to a statesman in every country but our own. We prefer the arts of the demagogue and the generalities of idealism. In this respect Mr. Kruger and his Hollanders taught us a lesson. In all their dealings with us, from 1877 up to the present hour, they have shown familiarity with the English character as marked as our ignorance of theirs. Their diplomacy was always based on realities; ours was largely based on a state of things we wished to believe. Hence our blundering in 1880, our lack of foresight in the negotiations of 1899, and our mistaken conception of the enemy in 1900.

To suppose that the Boer is a courteous and Christian gentleman, moved by the same impulses as Lord Roberts, is to suppose that the flowers of civilization and the flowers of semi-barbarism are identical, and that cunning, suspicion, and indifference to truth, can flourish together with generosity, frankness, and a nice sense of honor. A people, whose chief characteristic in its dealings with the outside world is an overmastering desire to overreach without any scruple as to the means, can have no conception of chivalry. Moreover, its invincible ignorance, remoteness from the world, and close association with savages in a state of semi-slavery have so developed the more forbidding features of the Dutch character that it is impossible to measure the Boer by the European standard at all. He is a curious mixture of the native and the white man, who, in his relations with us has shown the graces of neither. That this is an exaggerated view will be admitted by no one who knows South Africa intimately. Sir William Butler, who can hardly be described as unsympathetic towards the Boers, supports it in his admirable biography of Sir George Colley. On page 282, he says in a footnote: "Sir George's action" in advancing with a small force when reinforcements were on the way—"was probably to some extent influenced by misgivings as to the treatment which might possibly be extended to the



more remote garrisons if they should fall into the hands of the enemy (*cf.* a memorandum by the administrator, and Col. Bel-lair's district orders referring to Boer methods of fighting, and to the use of flags of truce for purposes of obtaining better positions, as well as instances of firing on white flags —S. Afr. Blue Book, 1881, c. 2866, pp. 109-111).” It will thus be seen that the treachery and cruelty of Boer fighting methods were so well known to British soldiers and administrators in the Transvaal during the first Boer war that it was responsible for much that would be otherwise inexplicable in Sir George Colley's plan of campaign. His forebodings were justified by events, the most disgraceful of which was the treachery of General Cronje at Potchefstroom. The Boer of to-day is the Boer of twenty years ago, as the treatment of the Bechuanas and Swazis, and the disarmament of Johannesburg after the Raid, amply testifies. But sentimentalism is proof against evidence. It preferred to believe the legend of the simple, pastoral Boer. He soon showed the guilelessness of his character. When his defeat at Talana Hill was being eagerly followed up by our men, he saved the situation by raising a white flag, under cover of which he quietly retreated with his guns and stores. From that day to this he has steadily defied the usages of civilized warfare to his own military advantage, while loudly demanding their observance from us, a piece of insolence in keeping with the insufferable pretensions of Mr. Kruger and his Hollanders in 1899. He and his burghers knew us well enough to be certain that they could transgress the most sacred obligations of war with impunity, and they traded on their knowledge at the cost of valuable English and colonial lives. At Ladysmith Captain Lambton protested against the constant use of the white flag by Boer gunners to allow them to effect repairs in their disabled guns. Sir George White complained to General Joubert that an artillery officer, disguised as an ambulance bearer, had entered the town under a flag of truce. Lord Methuen protested against the capture of Lt. Chandos-Pole-Gell, when going to meet a flag of truce, and requested General Cronje to warn his men not to fire on Englishmen who were attending to their wounded. At Driefontein Lord Roberts and his staff saw a Boer commando which had been driven into the open by our

artillery, promptly raise the white flag at the approach of our mounted infantry to cut off their retreat. Over and over again flags of truce have been hauled down the moment our men, sent to receive them, got within range of the enemy's fire. Near Sterkstroom the Boer leader gained a strategical position by forming his first line of Kaffirs, dressed as mounted police, so as to deceive the Colonial force, against which they were operating, into thinking that they were friends. The white flag raised over farmhouses which concealed Boer snipers, has been the cause of greater loss of life than it would be possible to estimate. Time after time the enemy has got away by concluding an armistice with confiding British generals, who refused to be taught by experience. At Kimberley, General Cronje, after repeated warnings by Colonel Kekewich, continued to fire on the hospital, and, at Mafeking, General Snyman was guilty of brutality scarcely less disgraceful. In short the enemy reduced the violations of civilized warfare to a system.

And what was done by us to prevent such outrages? To bring the Boers to a sense of the enormity of their crime? To vindicate the claims of humanity? Absolutely nothing until the war degenerated into brigandage, when it was too late. We who boasted so loudly of our regard for the usages of civilized warfare, condoned nearly every violation of them by the enemy. Instead of making them respected by severity we allowed them to be turned to the basest account by our weakness. Clemency we called it, but the Boers called it stupidity, and laughed at us for fools. The Germans very rightly hold that when the enemy refuse to be bound by civilized usage they must do the same. We, who once feared the charge of "blood-guiltiness," allowed our brave men to become the targets for Boer bullets. Sentimentalism forgets justice, patriotism, and duty, and demands a strict observance of the usages of civilized warfare, for which English widows and orphans have to pay. A strange humanity this! The blood of thousands of our best and bravest rises up in judgment against it.

Magnanimity, in its new form, went further. Not content with tamely submitting to white-flag outrages, it professed to see into the future. As in 1880, it followed a Will-o'-the-wisp, sacrificing every sound principle of government for an

end that can only be gained by their practice. Even military considerations were forced to give way to that fatal policy of conciliation, which has brought South Africa to its present pass. For fifty years, in spite of warnings, experience, and retribution, we, tried to govern the territory with clemency, and failed miserably. Nevertheless, it is still the dominating influence in the Cape Colony, and, until lately, in the conquered States. Sentimentalism refuses to be taught, even by the stern logic of facts. Neither the Dutch nor the Boers understood magnanimity, clemency, leniency, or chivalry, as the basis of a policy. Like the nations of Europe and the United States, they see in our humanity all the signs of weakness, all the signs of the enervating effect of long-continued peace and prosperity. Justice is the only sound principle of government which appeals to a practical people, and, for generations South Africa has prayed for it in vain.

The state of things in the Cape Colony defies description. Leniency has encouraged disloyalty to such an extent that it is a menace to Imperial interests. Durban, an English town, was put under martial law early in the campaign. Cape Town, a Dutch centre of population, has been left without military restraint from the first. That is to say, we locked the safe door of Natal, and left wide open the dangerous door of the Cape Colony, a piece of folly which would be incredible if it were not true. If sentimentalism were not entirely divorced from common-sense, neither town would have been placed under martial law, or both of them. As Durban alone was put to the inconvenience, the Dutch naturally ascribed the immunity of Cape Town as due to fear of the Bond. What else could they think? In this way treason was able to hold out one hand to Boers in the field, and another to European enmity and English traitors, so that communication between all three was continuous and systematic. Nor is this all. Nothing was done to check the mischievous influence of the Bond, or the seditious newspapers which represented its views. Ministers of religion were permitted to preach rebellion from their pulpits, and Dutch ladies to encourage treason and treachery without restraint. Of late prisoners on parole have been at liberty to conduct a campaign of lies, rousing the passions of the ignorant

Dutch by hideous tales of British barbarity, without a vestige of truth in them. As for the suffering and wrongs of the Loyalists last year, they are only paralleled in the history of the first Transvaal War. Even now they are terrorized in remote districts, and insulted in the towns. Do we owe no duty to them? If so, we have signally failed to perform it. Our leniency is merely another name for cowardice, and so it is regarded by the disloyal Dutch. If our slavish deference to their opinion had gained their respect, something might be said for it, but when, as might have been expected, it has merely strengthened their contempt for us, it is entirely mistaken. No wonder the English and loyal Dutch distrust us. The marvel is that their patriotism has stood the strain so long. For the disloyalists have no grievance. They have exactly the same rights and privileges as British subjects. They cannot point to a single instance in which their claims to recognition have been ignored. Moreover, their treason has been pampered until it is naked and unashamed, and no adequate punishment is likely to be inflicted on the men who fought on the Boer side, robbed English farms, and assisted the enemy with supplies, intelligence, and moral support. To compare the disloyal Dutch to the rebel Canadians of 1837 is an insult to the memory of men who fought for freedom from the incompetence of Downing Street.

In the late Republics the path of clemency was traced in blood. Never did the experiment of combining war and peace prove less successful. After the capture of Bloemfontein a proclamation was issued offering security to all those burghers who surrendered their arms, and took the oath of allegiance to the Queen. Here, again, our stupid sentimentalism made us ridiculous in the eyes of the simple Boer, and forced us to conquer the eastern Free State at enormous loss. For so little did our officers appear to grasp the elements of their business that they accepted old and valueless weapons without question. In one district only was any attempt made to destroy the enemy's mobility by commandeering every horse, wagon, and Cape cart, and in that district the burghers have since been tied to their farms as General Hunter left them. In truth we acted as though the occupation of the capital made the Orange Free State a friendly country. We were soon undeceived, and for

months, some of the hardest fighting of the war took place in the territory east of Bloemfontein. At Sanna's Post Commandant Pretorius, whose farm is in the vicinity, was foremost among the Boers in the attack on the convoy, in spite of the fact that he had taken the oath of neutrality and was supposed to have given up his arms. This is a typical instance of what has been going on in the two States since the occupation of the capital. In many cases there is something to be said for the burghers, who were left by us without protection. Either they broke faith with us, or they were exposed to the fury of their own countrymen. As a rule, however, the Boer has no more respect for the oath of neutrality than he has for a proclamation, which sentimental folk imagine is all that is required to end the war. They never inform us how we are to get the commandoes in the field to read it, or how to persuade De Wet and Delarey to agree to its terms supposing they do read it. We have moved from Bloemfontein to Pretoria in a cloud of proclamations, not one of which has been effective.

Could there be anything more tragically farcical than our trust in the good faith of the enemy? They went through the form of delivering up their arms and took the oath of neutrality, whereupon they were allowed to go back to their farms, in which they had concealed their rifles and ammunition, and the next we heard of them they were with a commando, shooting down English soldiers as before. Or they joined their friends in the field secretly, returning home when they felt inclined, their wives and families in the meantime having made a nice little sum by selling farm produce to the British. Has war ever been conducted in such an extraordinary fashion since time was? In the pockets of one out of every two prisoners captured, and one out of every two Boers found dead in the field, our men found passes, which are never given without surrendering arms and taking the oath of neutrality. The fact speaks for itself. Yet we did nothing to make such treachery a dangerous game to play, tolerating it as we tolerate white-flag outrages and the brutality of Cronje and Snyman.

Nor did our beautiful simplicity end here. Instead of giving positions of trust to Englishmen who had suffered by the war, they were given to Boer opportunists, or men who had

turned the war to their own profit. The consequence was British colonists learned anew the disagreeable lesson that, in the British empire, disloyalty pays, whereas loyalty is invariably its own reward, and the military authorities were able to trace more than one disaster to the treachery of the officials they had appointed. Even more exasperating to the army and the colonists was the sacred character with which our generals invested everything belonging to the enemy. These had looted, destroyed, and commandeered at their pleasure in Natal and the northern districts of the Cape Colony, but their property was respected by us with a scrupulousness that bordered on the ridiculous. For instance, General Clements, though his men were unable to find wood or even the droppings of cattle, to cook their evening meal, refused to allow them to take the palings of Boer fences in the town which they occupied, the enemy meanwhile grinning mockery at their weary efforts to achieve the impossible. If this is not Mrs. Jellaby's spirit in the field, what is it? Fortunately, General Rundle's humanity does not favor his country's foes at the expense of English soldiers. Next day he sent some of his own men to the town, and they carried away every bit of wood that could be lifted without pulling down houses or out-buildings.

It was not to be expected that a British war would be concluded without vile charges being hurled at the army by fanatics and traitors, beside whom the Boer is noble. For he defends his own cause at the risk of his life; they, either for their own ends or from narrowness of view, defend the cause of the Queen's enemies in perfect safety. Every one of them thinks and acts after the manner of Mrs. Jellaby. They are moving heaven and earth to witness their horror at the burning of Boer farms. The whole of northern Natal was ravaged last year and they never made a sound in protest, though the case was infinitely more lamentable. For destruction in the British colony was due to greed or pure wantonness; the destruction in the late Republics is punishment for white-flag outrages. Mrs. Jellaby naturally prefers that our soldiers should be lured up to Boer farms and shot, than that we should call in question the sacred right of the enemy to use treachery against her own countrymen. She also prefers that Boer farm-houses should be



stored with rifles and ammunition for the use of commandoes in the field, than that we should save bloodshed by burning them. That the destruction of his farm by Boer raiders should be a calamity to an English colonist is inconceivable ; that the destruction of a burgher's farm, for violations of the usages of civilized warfare is a wrong so great as to drive him to utter desperation is obvious. Such selfish inconsistency is characteristic of the Mrs. Jellabys, who form conciliation committees, but it is a grotesque libel on their professions of humanity. Take Mr. John Morley, for instance. Some weeks ago he wrote to the *Times* in a heartbroken strain, quoting a letter from a Transvaal lady, whose farm had been burned. He gave the impression that this was done in pure wantonness, having carefully erased every name that would identify the incident. A lack of intelligence is characteristic of Mrs. Jellaby, but lack of intelligence is not characteristic of Mr. John Morley, who shows some method in his madness. Curious that no Natal colonist should have invited the sympathy of the great apostle of Little Englandism ! Or is it too well known that he will never exert himself except on behalf of the Queen's enemies in distress ?

The truth is, our policy in South Africa, both before and after the declaration of war, was a policy of drift. Only for the brilliant generalship of Lord Roberts the sun of the British empire might have finally set in South Africa, for everything else was left to "our common humanity," and other pretty generalizations, which have nothing to do with facts. The consequence was a prolonged war, and an enormous loss of life on both sides. Had we recognized from the first the elements of the situation we should have destroyed the Boers mobility by commandeering all arms and ammunition, and every horse, wagon and Cape-cart in the territory, in which case the campaign would have been at an end months ago. Or we should have severely punished every breach of neutrality, and every violation of the white flag. We did neither, and "our common humanity" failed to work the charm ; so did conciliation. Hence what the Boers should have been taught to recognize as military necessity, was inflicted on them in a capricious way that appeared to them vindictive. To condone treachery until it had developed into a system, and then punish it arbitrarily,



is cruelty, beside which "the cruelty" of the Germans in the Franco-Prussian War, and the Americans in the Civil War was mercy. They, at least, carried out a policy based on military considerations and justice. The lesson is obvious. The sentimental folly of the past fifty years must be abandoned for common sense. If not, the empire will in another fifty, cease to be, and Mrs. Jellaby's spirit will be allowed to rest. For it is only invoked for the instruction and confusion of poor foreigners and colonials, never for the conduct of affairs at home.

## THE BOMBARDMENT OF PARIS IN 1870-71, AND THE REASONS WHICH DELAYED IT.\*

Translated from the *Internationale Revue über die gesammten Armeen  
und Flotten*.

(From the Journal of the Royal United Service Institution.)

THE *Militär-Wochenblatt* lately published a remarkable epitome of the work of General von Blume, "Die Beschiessung von Paris, 1870-71, und die Ursachen ihrer Verzögerung, from which we extract the following :

Everyone remembers the popular song in which Moltke was reproached for his delay in commencing the bombardment of Paris. The German people, whose patience was sorely tried by the daily telegram, "Before Paris: Nothing New," roughly exclaimed that they were tired of waiting. It was also believed that the Chancellor, himself so active, was indignant with the slowness of the siege, which paralyzed his political action. Nobody could understand how it was that generals, who had taken prisoners an emperor and whole armies, who had surmounted great difficulties with comparative ease, could not make a fortress submit, which, although large, was only defended by popular masses militarily organized. It was consequently surmised that there must be some hidden reason for this state of things. And the German people, who are not generally distrustful, brought themselves to believe that the personages at the head of affairs had some private motive for thus acting. It was in this way that the legend arose of the intervention of the English ladies who, it was said, had entreated their husbands in high places to protest in the name of humanity against such an act of barbarism as the bombardment of "The Mecca of Civilization," of "Paris the Sacred," would be.

The official historian took no trouble seriously to contradict this legend, so it continues to exist, although there was no foundation for it, and from time to time it reappeared in the Press, embellished with new details and accepted with pleasure by

\* *Die Beschiessung von Paris, 1870-71, und die Ursachen ihrer Verzögerung*, by von Blume, General of Infantry and Head of the Infantry Regiment Herwarth von Bittenfeld. No. 13. Berlin, 1899. Mittler & Son.

those who took delight in disparaging persons of high rank of their own country. For some people prided themselves on reproaching military chiefs like Moltke, Blumenthal, and even the Commander-in-chief of the IIIrd Army, for having weakly yielded to sentimental women and the suggestions of foreigners, and for having neglected to act as the exigencies of the war and their duty to their country required.

A writer of authority has at last been found to refute these accusations, which has not been done up to the present, and to absolve the memory of our heroes from this stain. For other reasons it was high time the work was done, because General von Blume is one of the small body of survivors who was in a position to follow completely and very closely the course of events before Paris.\* It is probable that he would not have departed from his reserve but that some recent publications have insinuated that even Bismarck and Roon believed there was some foundation for the reports according to which the supreme command of the German armies was subject to foreign influences. It became, then, a matter of conscience for the author to contribute on his part whatever might help posterity to fix the responsibility which lay on those who had any part in that complex affair. He has been unable to avoid stating that the imperious and commanding will of Bismarck was in part responsible for the dissensions, which were apparent in the Grand Headquarters Staff, but he has done it in so delicate a manner as in no way to diminish the respect which every German feels for the memory of the old Chancellor. Von Blume displays an absolute impartiality with regard to all the important matters on which he touches. The statement of the relations subsisting between Bismarck, Roon, and Moltke during the three wars brings to light some facts unknown until now, or which have passed unnoticed.

General von Blume demonstrates the correctness of his assertions and proves so conclusively that the delay in carrying out the bombardment of Paris was due to serious causes, that we are quite convinced there is no necessity to seek for occult rea-

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\* General von Blume served as a major on the Headquarters Staff, and was Chief of the Bureau of Operations, all important papers passing through his hands, and he was held in high esteem at that time by Moltke.

sons for these events. In view of its importance, it seems to us of general interest to give a condensed *résumé* of the brochure in question.

This *résumé* is, however, not intended to render superfluous the reading of the brochure itself :

The author commences by pointing out the position which Moltke held at headquarters and his relations with the King; and to do this he has to go back some years. In 1864, when Bismarck and Roon were already very important political personages, Moltke—although called to the head of the General Staff by the King, who had a high appreciation of him—was, comparatively speaking, unknown to both the army and the country. Moreover, the importance of the position of the head of the General Staff had been much lowered during the long period of peace. The holder of the appointment could not report directly to the King, and could only communicate with him through the Minister of War, von Roon. This state of things lasted during the war with Denmark. Roon made all reports and transmitted the orders to the Commander-in-chief of the Army of Operations. In order to keep himself somewhat in touch, and have something to go upon for the advice he was frequently called upon to give, Moltke had recourse to the expedient of maintaining a private correspondence with Blumenthal. When, after the capture of the Düppel lines, the King repaired to the field of battle to salute the troops, von Roon, not Moltke, was chosen to accompany him. It was only on May 1st, when, as the Chief of the General Staff, he was attached to the Commander-in-chief, that he had an opportunity of showing his qualities; but, on the other hand, he lost the modest place which he had previously held in the Council of the King.

At that time, from the point of view of the conduct of the operations, Moltke only occupied a secondary place by the side of Roon, and the whole war, owing to the number of political considerations which had to be taken into account, tended to make the post of the Minister for Foreign Affairs the most important. And nothing was lost by this; the solution of the Schleswig-Holstein question by Bismarck was a master one. If policy and the conduct of operations constantly agreed, it was

because the friendship of Bismarck and Roon, founded on a mutual esteem, contributed much to this accord.

It resulted that in the following war, Moltke could only acquire little by little the position which he ultimately attained. Nevertheless, from the preparatory epoch, he played a rôle quite different from that of 1864, and starting from May 2, 1866, the Chief of the General Staff definitely took the place of the Minister of War in all that concerned the orders to be given to the armies in the field. Thus the duties of each of these three personages were settled in a rational manner. But the successful issue of the war depended in 1870, as in 1866, on a proper accord between them. They had to act upon the principle of assisting each other, while avoiding meddling in each other's business. Moltke faithfully followed this principle, which, as far as the second requirement was concerned, came easily to him owing to his natural reticence; von Roon tried to act similarly, in effacing himself as much as possible. Bismarck alone, owing to his impulsive character, did not always confine himself to his proper sphere of action. If it is true that policy determines the final object of the war, the Commander-in-chief ought, nevertheless, always to have an entirely free hand in the choice of means for insuring victory.

The short duration of the war of 1866 contributed to maintain harmony. It was only with the commencement of the peace negotiations that differences of opinion showed themselves. Bismarck's solution, however, in spite of the views of the soldiers, was soon unanimously approved.

The war of 1870 commenced at a time when the most complete accord reigned between these three grand men. Unfortunately, the relations between the Chancellor and the General Staff soon became strained and little by little an acute conflict was brought on. The first cause of disagreement was probably due to the fact that Bismarck was not allowed—as in 1866—to help with the reports that the heads of the army made to the King; but as this was his Majesty's decision, on his own initiative, he doubtless had good motives for his action. There are many reasons why all military affairs should be looked into in the presence of the Chief of the State. But to have obtained a complete accord it would have been necessary that, as Bismarck

had helped with the drawing up of the reports to the King in 1866, so Moltke on his side should have been kept *au courant* with all diplomatic action. Now, that was not done in 1866, and, had it been, it would most probably not have suited Bismarck's designs. But in the state of things which existed, political action could easily be made to dominate military authority, and this it was absolutely necessary to avoid. In addition to this as opposed to the political situation, which existed both in 1864 and in 1866, the outlook was altogether clear and without complications, and in view of the rapid march and success of the operations, no political crisis was to be feared.

Contrary to old traditions, Bismarck was not kept informed of what was going on by the heads of the military departments, and this he considered an insult. "Under these conditions," says Blume, "each of those small and miserable details which are bound to crop up in time of war contributed to the aggravation of the conflict." But the author considers rightly, that the real cause of the Chancellor's annoyance was due to the fact that during the Franco-German War, he had a far less important rôle to play than in the two preceding wars, and also during peace-time; so that while military events of the highest importance were taking place, the consuming energy of the Chancellor had no means of being satisfied. The rôle of mere spectator, which was enforced upon him during the time that he was before Paris, became altogether insupportable, and when the legend was born which has given rise to so much discussion, he was just in the temper to give credit to it. The real motives for the delay in commencing the bombardment remained unknown to him, since he was not in touch with the heads of the army, and his relations with Moltke were very strained.

That which is additionally astonishing is that Roon himself, who was fully informed as to the causes of the delay, gave some credence to the legend. General von Blume cannot explain this in any other way than from the fact of the severe illness from which Roon suffered during November and December, and which had attacked the mental faculties of the minister. Von Blume is of opinion that Roon would have changed his mind if he had been aware of the correspondence carried on

by Moltke in 1870-71, and which has since been published; he is also confident Bismarck did not see it.

It is on this correspondence that General von Blume relies above all to lay bare the events which passed before Paris, and, in addition, to give everyone an opportunity of judging for himself, he has published also the document on which he bases his conclusions.

There were three different methods of reducing Paris :—

1. Famine.
2. Bombardment.
3. Methodical attack of the forts and the "enceinte."

Famine had given the wished-for results at Metz, and it promised to succeed even better in the case of Paris. It was very difficult to estimate the quantity of provisions that there were, but people competent to judge were of the opinion that they would not suffice for more than ten weeks. On this point they were deceived, as in the same manner they erred as to the degree of resistance offered by the French—and it was a very pardonable error. It was decided, then, to reduce the town by famine, but precautions were taken from the first should this course prove inefficacious. So early as the 9th September Moltke transmitted an order from the King to the Minister of War enjoining him to send to Paris, with all possible speed, the most powerful and the greatest number of siege guns obtainable. Also to complete the blockade, inspector-generals of Artillery and Engineers were ordered to submit plans for a general attack. In their report of the 30th September they proposed to make a regular attack from the south-west front combined with a sham attack from the north-west. These proposals were approved by the King on the 2d October, and the general commanding the IIId Army Corps was instructed to make the necessary preparations and carry out the attack. To procure the matériel necessary for the siege, however, more time was required than had been anticipated, and this, although they had taken into consideration the fact that they had only a single line of railway at their disposal.

The Minister of War recommended at the latter end of October that the artillery attack should be hastened, and in his reports to the King at the end of November, he expressed his



fears in very distinct terms. The Chancellor backed his warning by a note in which he pointed out, that these delays were producing the most disastrous results, as much in Germany as abroad. The result of these discussions was to greatly disturb several high personages for some time.

There was no divergence of opinion on the subject of attacking Paris by the artillery, and Moltke himself was in favor of it from the beginning to the end of the siege. He was only in doubt as to whether this attack was necessary before Paris surrendered of herself. This hesitation, in so simple a matter, to take a decided line, has given cause, to those who did not know the real facts, to doubt the character of Moltke, which was essentially a strong one. It was decided to begin the attack as soon as the necessary preparations were made, although there was not perfect agreement as to the exact plan. Moltke, the Commander-in-chief of the IIIrd Army Corps, and the generals of the various armies engaged foresaw that an attack in force was necessary. For this, a concentrated artillery fire was required against the heavy cannon used by the French (it was afterwards known that they had 600 guns engaged), which had to be put out of action. Moltke then thought—and nothing afterwards changed his opinion—that he was only in a position to open fire when he had a sufficient number of guns at his disposal, together with a plentiful supply of ammunition. On the other hand, the German press being very impatient, advised Bismarck and Roon to begin the bombardment of the interior of Paris. The Parisians, they said, were already so crushed by the miseries which they had had to endure, that the increased sufferings which a bombardment would cause would in itself speedily bring their resistance to a close. To obtain their surrender fewer guns and munitions of war would have sufficed. There was no doubt whatever amongst the German Headquarters Staff as to the right of bombardment according to the rules of war, but they had grave doubts as to its success, and upon this point General von Blume expresses himself lengthily.

At the express instance of Roon himself the King summoned, by an autograph letter of the 28th November, the Chief of the General Staff and the Minister of War and ordered

them to justify the delays which had taken place in the preparations for the attack, and to find a remedy for the situation. On the 30th November General Moltke wrote a memorandum in which he made known the reason of the delay in the arrival of the matériel necessary for the siege, and what measures he proposed taking to hurry it forward.

About this time important events at the seat of war in the provinces occurred. The Army of the North had been defeated on the 27th November at Amiens; the Army of the Loire on the 28th at Loigny-Pompry, Orleans soon followed, and the "supreme effort," Champigny before Paris, came to nothing. After these events one can well believe that the power of resistance on the part of the enemy was weakening, and Moltke was of opinion that it was only necessary for an event, more or less important, such as the surrender of the forts, for example, to occur, to lead to the capitulation. In his memorandum of the 30th November he restricted his propositions to this point, apparently rejecting the idea of a final attack. One must not lose sight, therefore, of this point of view of his when one examines the circumstances which occurred before Paris.

It was in consequence of this train of circumstances that the King decided in the early days of December to begin an artillery attack on the south front, where the first train of ammunition had already arrived, and where a regular reinforcement of supplies would be assured. But he also proposed as a secondary action to bombard the town. The necessary preparations were to be pushed on with the greatest possible activity, always taking precautions to be able, if necessary, to press the attack up to the capture of the principal "enceinte." In spite of all these efforts the attack on the south front was not begun until the 5th January. General von Blume has given us a very clear and concise account of this. Neither the bombardment nor the regular attack hastened the surrender of the place. It fell on the 26th January, 1871, principally by reason of the stock of provisions coming to an end and the failure of all the efforts to raise the blockade.

From all we can gather, the march of events would not have been altered if the bombardment had commenced sooner. But if a regular attack had been begun at the end of October—and

with sufficient matériel—the fall of the city and the signing of peace would probably have been brought about a month or six weeks sooner and, as far as one can judge, without any greater losses. The question, then, of discovering if the preparations for the regular attack could have been hastened, gains greatly in importance. On this also one hears from many sources that the delay had been tolerated and desired.

Nevertheless therein lies the most difficult side of the situation. It was necessary to bring 300 heavy guns for the main attack and 2500 tons of ammunition. The authorities had at their disposal the Nancy-Toul-Reims railway, which at the same time was the sole line of communication of the besieging army until when they were able to assign to the Army of the Meuse a branch line of this railway. But in spite of this, that line accomplished the task with great rapidity in that which concerns the transport of the guns. The difficulty, above all, was in the transport by road from those points where the lines terminated—Nanteuil (100 kilometres), after that Loigny (50 kilometres)—as far as Villacoublay. It fell to the lot of the Commander of the III<sup>d</sup> Army Corps to be responsible for this transport. The roads, which were very hilly, were good to begin with, but by reason of the traffic consequent by the war, and, in addition, owing to the heavy rains which fell in November and December, they soon fell into a very bad state.

To transport all the matériel, thousands of strongly built carriages were requisitioned, drawn by powerful horses. As no preparation had been made for this in peace-time, it was necessary to supply their places by other means of locomotion. It is interesting to read in General von Blume's brochure what steps were taken to procure these substitutes.

The Minister of War gave orders on the 3d December for the mobilization of columns of carts and wagons to carry the munitions of war, and these were organized after military fashion. No one knew, even he himself was ignorant of the difficulties which shortly presented themselves, or he would have been able to take measures with greater alacrity, after Moltke's report on the 9th September. These columns began to arrive at Paris towards the end of December and commencement of January. After the battle of Orleans they were also able to

make use of a certain number of ammunition wagon teams, and in accordance with orders from headquarters the Ist and IId Army Corps requisitioned nearly a thousand horses equipped to draw four-wheeled wagons.

It was in this manner that they were enabled to accomplish so gigantic a task.

The reader has some right to ask why Roon—who had persistently required the Quartermaster-General to use haste—did not bring his own influence to bear in order to lighten the difficulties. Von Blume supplies the obvious reason in the fact that the Minister for War was unable to do so, owing to the complaint from which he was suffering. And if Moltke was unable to take an active part in this, von Blume rightly observes, it was because, in the first place, his whole attention was absorbed in the events which were occurring in the provinces, away from Paris, and also that he purposely avoided interfering in matters which concerned generals with independent commands.

Von Blume makes a note of the fact that it would have been of advantage if Moltke had made in this case an exception to the ordinary precedent.

General von Blume concludes by hoping that he has succeeded in proving that the delay of the attack on Paris clearly explained itself without any suggestion that "certain personages, forgetful of their duty, had yielded to foreign influences which were inimicable to the true interest of the Fatherland." This proof the General has fully established, and the army should, once and for all, be truly grateful for the fact that the question as regards the bombardment of Paris is now settled, and also by reason that an unjust suspicion has now been dispelled from the reputation of a man who was ever the greatest figure of that army.

## ÆTHERIC SIGNALLING.

*(From the Army and Navy Gazette.)*

COLONEL HOZIER gave a lecture to the officers of the Woolwich garrison at the Royal Artillery Institution, Woolwich, last week, upon a subject which may be of very great importance to the Naval and Military services. The subject was the science of communication over considerable distances without the intervention of telegraph wires or cables.

The desire to communicate ideas to a distance has been prevalent probably since history began. In the times of the Napoleonic wars long lines of semaphores were erected between the naval ports and London to keep up communication between the fleets and the Admiralty. Signalling by flags was in vogue long before Nelson flew his famous signal at Trafalgar. Early in this century the commercial code of flag signalling was adopted for the mercantile marine, and more lately a system of signalling, technically known as "flag-wagging," is constantly utilized in all manœuvres. Towards the middle of the century the electric telegraph was developed, and now by means of a conducting wire millions of messages are flashed every day between different continents and under various oceans. In various cases it is impossible or inconvenient to use a conducting wire for this purpose. For instance, if an island be separated from the mainland by a rocky channel where a tide runs strong, it is impossible to maintain a telegraph cable, and in other cases the cost of laying a cable could not be compensated for by the amount of traffic which would be secured, and this would prevent the postal authorities establishing telegraphic communication, especially in this country, where a careful Treasury watches so jealously over the public purse-strings. In such cases it must be of great importance to establish, if possible, communication of ideas between two distant points without the cost of laying a cable. This is still more the case with regard to communication between the shore and ships. A ship which is moving cannot possibly be connected by cable with the mainland, hence the only means by which communication of this sort beyond the range of vision can be maintained between a

ship and the shore must be by some mode of wireless telegraphy or ætheric signalling. Nor is this the only advantage of ætheric signalling if it can be carried out. Experience has shown us that by means of ætheric signalling work can be done at a distance without any conducting medium for the transmission of energy. For instance, by means of ætheric signalling, it is possible, at a distance, without any actual contact, to fire mines, to ring bells, or to light an incandescent lamp.

It is hardly necessary to point out that if we have the power of doing work at a distance, say, of 20 or 30 miles, by means of ætheric signalling, this system must be of advantage in war. If an enemy were advancing to attack a position, it might be possible to blow up a bridge even when his troops are upon it, and thus considerably hamper his advance. In the same way it might be possible to much inconvenience the enemy by blowing up buildings in which his troops were billeted. It is possible that if his divisions arrived after dark in a village, there would not be very much care taken to search the church towers and see that there was no small piece of wire running down one of them. Yet the existence of that wire, properly arranged by the defending army before it marched out of the village, might cause considerable injury to the invader. Nor need we limit our benevolent intentions towards our enemy to land. At present torpedoes and submarine mines are fired by electricity, by means of conducting wires, but in some cases it might be difficult, if not impossible, to lay the necessary cables. In these cases it is possible that the mines might be exploded and the torpedoes fired by ætheric signalling. For instance, although a cable could not be laid, it might be possible by placing the necessary apparatus on a buoy anchored out at sea beforehand, to secure the firing of a mine or torpedo, as I shall endeavor to show by a miniature experiment.

Ætheric signalling also might be useful in communicating between advance posts at a considerable distance and the main body of an army, or between the main body and the advanced posts. By touching a button in the headquarter office a bell might be rung at the advanced posts, or the same energy which could be utilized to ring a bell might by proper manipulation be also utilized for printing a message, as we shall be able to

show at the conclusion of the lecture, and indeed, in some cases, a gun might be placed in position, and when an enemy approached shrouded by rifle fire, it might be possible to fire the gun by ætheric signalling without exposing the gunners to infantry bullets.

#### WIRELESS TELEGRAPHY.

Ætheric signalling and wireless telegraphy are much confounded in popular descriptions, but there is a considerable difference between them. There are two systems of wireless telegraphy which have proved successful. The first of these is that which has been introduced by that great electrical authority, Sir William Preece. Sir William Preece, whose name is received with respect in every scientific meeting in the world, on account of original research which has made him famous, was for many years the head of the telegraph department of the Post Office, and now is the consulting electrical engineer to the Post Office. Hence, he is the greatest living authority on telegraphy. He has devised a system of wireless telephony. The principle of this system is, that suppose it were desired to effect communication without the medium of a conducting wire between the island the mainland, it would be achieved by stretching along the island and along the mainland two parallel telegraph wires, the ends of which would be sunk either in the sea or in the earth. It has been proved by Sir William Preece that if an electrical current be set up in one of these wires, a corresponding current is induced in the other wire, and that hence the signals transmitted through the first wire are repeated in the second wire. In this case it seems that the electrical effects are transmitted not only by induction between the two wires, but by conduction through the earth in which the terminal plates of the wires are embedded. This system has been established at the island of Flatholm, in the Bristol Channel, where Lloyds' signal station is now connected by wireless telephony with the mainland, over a distance of three miles by sea. Sir William Preece has also established his system at the Skerries Islands off the coast of Anglesea, where communication is effected over two miles of sea, and the Post Office is now establishing this system on behalf of Lloyds' to connect Lloyds' signal station at Rathlin Island, on the north coast of Ireland, with



the mainland, over a distance of about seven miles. The experiments which have been made, as Sir William Preece states, prove conclusively that communication, both telegraphic and telephonic, has been readily maintained by these means, and that wireless telegraphy across the sea by this method is now a practical and commercial system. He also believes that it would be simple to speak by telephone between ship and shore or between shore and ship at a considerable distance by means of a circuit formed of copper wire passing over the topmasts and terminating at each end of the ship in the sea, using simply telephones.

Another system of wireless telegraphy was proposed by Charles A. Stevenson, brother of the engineer to the Northern Lighthouse Board of Scotland. This system, which has been subsequently developed by Professor Oliver Lodge and other engineers, owes its origin, like that of Sir William Preece, to a physical fact discovered by the celebrated philosopher Faraday. Faraday showed that the approach or recession of a current might induce a current in a closed circuit near it. This I will endeavor to show by the apparatus before me, which is a miniature of Mr. Stevenson's coil system. For the purpose of experiment a coil of insulated wire is connected to a battery of two or three cells, with a key to turn the current on or off. A second coil entirely unconnected with the first is joined by wires to a galvanometer. We know that a coil of wire in which a current is circulating acts like a magnet. We find that if, while the current is flowing in one coil, the coil is suddenly moved up towards the other, a momentary current will be induced in the second coil. If the first coil is suddenly moved away from the second another momentary current will be observed in the second circuit. In a similar way if a circuit be made or broken, it has the same effect as suddenly moving the coils. It is evident that if sufficient force can be exerted in the coil by these means to move a galvanometer, the same force can be utilized to move a telegraph needle or any desired means of communication. This system has, I believe, been used, the coils, of course, being much larger and the batteries much stronger, by Mr. Stevenson, in Scotland, and has been fairly successful, but when it was proposed to utilize this system

in connecting a lighthouse on an island lying to the north of the Shetland Isles, it was considered that it would have been necessary to place on the lighthouse rock a coil of 40ft. in diameter and on the shore of the mainland a coil of 200ft. in diameter. The rock coil would have required about 120ft. of wire, and the mainland coil about 630 ft. of wire.

#### ÆTHERIC SIGNALLING.

The objections to wireless telegraphy appear to be that the length of wire required to transmit messages across a channel is large, and hence inconvenient, and not capable of being adopted where communication must be made from a small space, such as a rock lighthouse. The lecturer prefers to trust to the system of ætheric signalling so called, because the means by which the signals are transmitted depend upon the undulation of the waves of that ether which we know exists everywhere throughout the universe, and which is undoubtedly the means of propagation of light and radiant heat. The application of radiant heat to the transmission of signals is more interesting as a scientific experiment than capable of practical use. For practical, useful signalling, we must probably rely on ætheric signalling properly so called.

It is well known that if the positive and negative poles of a voltaic cell or a voltaic battery be connected by a conducting wire, an electric current flows from the positive to the negative pole. If the battery is strong enough, that current may be made to work—that is to say, it may move a motor, it may ring bells, light incandescent lamps, or be turned into any form of energy required. If the conducting wire be cut and the circuit thus opened, the electrical current immediately ceases to flow and the work that was being done instantly stops. It is perfectly easy for any person standing by a battery to connect by a conductor the two poles and cause the current to flow. The problem to be solved for ætheric\* signalling is how at a distance of some 10 or 20 or more miles to close the electric current of a battery at will and to open it at will so as to cause work or stoppage of work. This is done in all systems of ætheric signalling which employ the Hertzian waves by means of “a resonator” or what is called a “coherer.” Resonators are better adapted for scientific investigations by *savants*

in laboratories than for rough and practical work in the field.

The system of coherers was originally formulated by Branley, Professor of Physics at the Institute of Paris, in 1890, who first discovered that electrical sparks caused undulations in the luminiferous ether which acted upon a coherer. Since that time the system originally formulated by Branley has been improved upon and amended by Popoff, Bose, D'Arco, Oliver Lodge, Maskelyne and other electricians. It remained for Marconi to draw public attention to the possible commercial value of this system, but there seems nothing in Marconi's patents which is new except the patent of a special form of coherer which he employs. A coherer consists essentially of metallic springs or metallic filings. Experience has taught us that when the waves in ether—the Hertzian waves as they are termed—propagated by electric sparks, properly manipulated, even from a considerable distance, impinge on these metallic springs or metallic filings, they cause the springs or filings to cohere, and thus form a conductor for the passage of the electric current. The best coherer as yet brought to public notice appears to be the coherer invented and patented by Mr. Maskelyne. A simple experiment shows that if a coherer be placed in the circuit of a voltaic battery, it does not matter at how great a distance off the Hertzian waves impinge upon it, the electrical current immediately flows and is available to do work such as ringing a bell.

It cannot be too carefully borne in mind that the Hertzian waves do not ring the bell, nor does the coherer do any work. The work done is by the electric current of the local battery at the distant station conducted through the coherer. All that the coherer does is to close the circuit of the local battery. All that the Hertzian waves do is to cohere the coherer, and thus to cause the electric current at the distant station to flow and to do work. It is evident that so long as the Hertzian waves impinge upon the coherer the coherer will be cohered, and the electric current will pass. The next point, therefore, that is necessary to establish, is how to stop the circuit when we do not want the current to pass, or when we want work to be suspended.

Experience has shown that if a coherer is sharply tapped or shaken, the metallic particles fall asunder. There is after shaking, no longer a conduction of electricity through the coherer—the electric current of the local battery consequently ceases, and work stops. One of the problems, therefore, of ætheric signalling is to devise a means by which the coherer can be decohered automatically after the receipt of an impulse. This is done by various methods in various systems; Marconi employs a tapper, Ducretet also employs a tapper, and most other systems do the same. In the receiver invented by Mr. Maskelyne, the coherer is not decohered by a tapper but by an armature.

To carry out this decoherence various subsidiary arrangements have to be introduced at the receiving station in the coherer circuit. It is hardly necessary to complicate a simple discussion of broad principles by details of subsidiary machinery, which at the best must be somewhat involved. Much of the success of Mr. Maskelyne's invention depends upon the perfection of the certainty and simplicity of the decohering device. The Maskelyne coherer is so simple that ordinary signalmen can use it and send messages and signals by it. Its action, too, is so certain that for many months the same coherer can be used without the necessity of alteration or regulation. At present it is necessary to have a tolerably high mast in order to secure communication, but it is believed that before long it will be possible to considerably reduce the height of the mast. It is also believed that before long by means of metallic telescopes it will be possible to direct the Hertzian waves, so that they will only impinge upon the particular target to which it may be desired to direct them, and there can be no doubt that experiments will suggest various improvements which will allow for the betterment of the system.

A system of ætheric signalling, which has been tried between Sheerness and Shoeburyness, across the mouth of the Thames, with the Maskelyne coherer, is found to answer very satisfactorily across that distance, which is over five miles. It is probable that great improvements will shortly be made in this system, but in the meantime it is quite sufficiently developed for all practical purposes up to probably 30 miles, and it is not often that, so far as a ship signalling is concerned, a dis-

tance of more than 12 miles is required. In some instances the distance across channels over which communication is to be established between islands and the mainland is not nearly so much as 12 miles.

It is apparently established that if a coherer be placed in the circuit of a local battery and by any means that coherer can be made to cohere at will from a distance, so as to allow the electrical current to flow, and can be similarly decohered from a distance, so as to stop the electrical current flowing through the local battery, that local battery will practically do any work that is required. The next question is as to the means by which the coherer can be cohered. This is effected by means of what is called the "Hozier transmitter," which emits sparks across the spark gap between two points. It is well known that if a coil of wire be wound round a piece of iron and a finer coil of wire wound again around the first coil, an induced current of electricity from the battery with which the coil is connected is sent through the secondary coil at a very high tension. This fact is made use of and the current from these batteries passed through this coil comes out of secondary coil at a high tension and emits sparks across the spark gap. These sparks have the property of causing undulations in the ether, and these undulations are waves which are very similar to the waves of light or of radiant heat. These Hertzian waves, propagated by the oscillating spark across the spark gap, can, like the waves of light when they strike upon a plane surface, be either absorbed, or reflected, or transmitted. If a piece of ebonite, which is an insulator, be placed between the waves and the coherer, the waves will pass through the insulator. If, on the other hand, a conductor, such as a piece of copper, be placed in the way, the waves are stopped, and you will see that the coherer has no effect. Ordinary ironwork will act in the same manner. If anybody would wish to study these Hertzian waves (and they form an interesting subject of study) they should refer to the work of Professor Hertz, translated into English for those who do not read German by Professor Jones, with a very valuable preface by Lord Kelvin.

PRACTICAL UTILITY OF ÆTHERIC SIGNALLING.

It is not unnatural that those who advocate ætheric sig-

nalling may be asked to what extent ætheric signalling will be of practical value. It seems that some damage has been done to ætheric signalling by the exaggerated claims that have been made for its utility. It appears that where it is impossible to make use of a conducting wire, such as a land wire or electric cable, this system of ætheric signalling may be of immense use; for instance, in bridging over those channels where a cable cannot be laid, in communicating between ships and shore, or between shore and ships, where it is impossible that a ship can be connected by cable, and in war where time will not allow a cable to be laid, or when circumstances intervene, such as the presence of an enemy, which prevent cable connection. But it seems that ætheric signalling at present can only be of great practical use where conductors of electricity cannot be utilized. Of course, we do not know what developments science may produce, but at present it is difficult to perceive how this system can be superior to the system of conductive telegraphy. The subject, however, is one of great interest, and no doubt capable of great developments; and it is one well worth the study of those who have an inclination to scientific research.

It is evident that for the purposes of Lloyds, and for the purposes of the mercantile marine, any system by which vessels that require assistance, or aid from the shore, may be able to communicate with the shore is most advantageous. It is evident that a vessel, being a moving body, cannot be connected by telegraph cable with the shore. Therefore, when she is beyond the range of vision so that flag signalling cannot be utilized, it is much to be desired that some system of communication between ship and shore should be established. Flag signalling is always precarious. Manifestly, it cannot be utilized at night. In thick weather, in snow, and sometimes in rain, the signals are obscured and cannot be distinguished. For this reason Col. Hozier and those who have worked with him have done their best to develop some practical system of ætheric signalling which may be the means of every year saving from the perils of the seas thousands of pounds' worth of property and hundreds of human lives.

## AN ACCOUNT OF SOME PAST MILITARY AND NAVAL OPERATIONS DIRECTED AGAINST PORTO RICO AND CUBA.

BY CAPTAIN C. H. STOCKTON, U. S. NAVY, PRESIDENT OF THE NAVAL  
WAR COLLEGE.

*(From the Proceedings of the U. S. Naval Institute, Annapolis, Md.)*

THE waters of the West Indies and Caribbean have been the battle-ground for various European nations for several centuries. Although not as rich in historic associations as the Mediterranean, to which it has not inaptly been compared, still, the insular or isolated nature of the bordering countries of the Caribbean has caused the warfare in these countries to be very largely and primarily of a maritime nature. When the interoceanic canal is constructed, not only will the importance of these waters be magnified, but the latter-day similarity to the waters of the Mediterranean greatly increased.

The West Indies have been the nursery for great English seamen; Sir Francis Drake, Anson, Hawke, Rodney, Howe, Hood and Nelson all served and distinguished themselves in these latitudes. While the East Indies and British India have been the training ground for English soldiers, the West Indies have served in the same manner to develop the English naval leaders of past centuries. In our own history, the Perrys, both Porters and Fairagut have all spent much of their sea lives in the West Indies and along the Spanish Main, and during the late war with Spain the backbone of the sea power of Spain was broken by the Admiral who still quietly awaits the recognition of his work by the country he served so well.

It is not my intention to recount all the operations, large and small, that have occurred in or about Cuba and Porto Rico—now under the American flag and sovereignty, but to recount the principal operations in times past against San Juan de Porto Rico, Santiago de Cuba, and the city and port of Havana. It happens that these operations have been under the English flag and carried on in the several wars between England and Spain



during parts of the sixteenth, seventeenth and eighteenth centuries. In at least two of the expeditions, that against Santiago in 1741 and the one against Havana in 1762, there were contingents from some of the English North American colonies now within the area of the United States. The first expedition, in point of time, was that against the capital of Porto Rico, San Juan, in 1595.

On the 28th of August of that year, a fleet of 27 vessels, under the joint command of Sir Francis Drake and Sir John Hawkins, left Plymouth, England, for the West Indies and Central America. With the expedition were land forces numbering 2600, under the command of Colonel General Sir Thomas Baskerville.

In the early days of the formation of the expedition, its objective point was the Isthmus of Panama; but shortly before the time of sailing the commanders learned that a Spanish treasure ship, in a crippled condition, had put in for shelter at San Juan and there dismantled and disarmed. She remained with two millions and a half of treasure in her hold from the rich mines of Mexico. Queen Elizabeth, who was interested financially in the expedition, ordered that, if possible, the treasure ship with her cargo should be captured.

The evils of the joint command under which this expedition was placed came very soon to the front. Sir John Hawkins carried his flag on the *Garland* and Sir Francis Drake, much younger in years, flew his flag on the *Defiance*, while, according to the arrangement made before sailing, the council of war was to meet alternately on these two ships, beginning on board that of the elder officer. Before reaching the coast of Spain, the question arose as to the first objective: Drake desired to begin with the Canary Islands, but Hawkins thought such an attack unwise and inexpedient; Baskerville siding with Drake the latter carried the day, but almost at the expense of an open rupture. The repulse that followed the attack upon the Canaries did not mend matters.

However, on the 29th of October, the fleet, with the exception of two small vessels, arrived at the island of Guadeloupe in the West Indies. Unfortunately, five Spanish frigates, sent to bring home the delayed treasure in Porto Rico, fell in with the

two belated vessels, capturing one and chasing the other until she joined the main body, thus discovering the position and force of the English fleet. Learning the destination of the fleet, by torture it is said, from the captured vessel, the Spanish commander crowded all sail for Porto Rico to notify the authorities at San Juan of the coming of Hawkins and Drake.

Drake immediately saw the disastrous result of this discovery and capture, and was at once anxious to get under way, pursue, and attack the Spanish frigates. Hawkins, however, refused to consent, and Drake in vain urged upon his old kinsman the vital importance of rapid action. Hawkins, however, was sick and infirm, and Drake could not press him too far, so the fleet remained for refitting and for the remounting of guns stored below for the transatlantic voyage.

When the fleet finally sailed Drake delayed again at the Virgin group to find another passage through, besides the one usually taken, and at which were placed the lookout vessels of the Spaniards. Another channel being sounded out by him in his own barge—known to this day as Sir Francis Drake's Channel—between the islands of Virgin Gorda and Tortola, the expedition passed in rear of the small Spanish scouting vessels, and came within sight of San Juan without the immediate knowledge of the authorities, though the arrival of the Spanish frigates had conveyed the general information as to their aim and former whereabouts.

When, however, Drake and his fleet—soon to be his alone—arrived off San Juan, matters there were in a good state of preparation for defense. Don Pedro Tello, the "general" of the frigates, was placed in charge of this defense. His troops were landed from the frigates to reinforce the garrison, additional artillery had been mounted and two large vessels, of which the dismantled treasure ship was one, were sunk at the mouth of the harbor and a boom constructed upon them to complete the barrier. The treasure had been placed on shore, in the citadel, in the meantime.

Drake and his fleet were sighted from the city at the day-break of the 12th of November, and about this time Sir John Hawkins passed away, leaving Drake sole Commander-in-chief. As the English fleet came up with the light morning breeze in-

creasing in strength, a caravel was seen preceding it with numerous small boats sounding and signalling the way.

The city of San Juan is built upon a rocky promontory at the end of a long island, which makes the harbor and its connecting interior waters. This island, almost a peninsula, running in a general easterly and westerly direction, is separated by a small inlet known as the Boqueron, which has always been commanded by some sort of fortification.

At the west end of this peninsula, directly at the rocky site of the old town, is the entrance to the harbor, at this point having a navigable channel of 500 yards in width only, but opening out behind the town and promontory and presenting a good harbor in depth and security for vessels of moderate draft of water.

Five years before the arrival of Drake the place had been strongly fortified, and at the time was held to be one of the strongest ports in the West Indies. The entrance was commanded by the Morro and the Rock battery, and the usual town landing place by Sta. Elena battery. To the eastward of the town were works known as the Morillo and Cabron, while the shore end was defended by the work at the Boqueron, and at the head of a causeway or bridge was Fort San Antonio, covering the only approach from the mainland to the island upon which the city was placed.

In all, the defenses at this time mounted seventy guns and the garrison consisted of 1500 Spanish Regulars, besides a force of about 8000 colonials capable of bearing arms.

Approaching from the eastward along the coast line, the boats in advance of Drake's fleet, with their white flags showing a safe course, soon came within the reach of the fire of the Boqueron, and there showing colored flags, at once stood off shore. The fleet, however, stood on by the Boqueron in close order until it passed Escambron Point, when it came to anchor in a sandy bay, still to the eastward of the town.

The anchoring of the fleet at this place was a surprise to the Spaniards, who at once expected a landing from the fleet. Unfortunately for the English, this sandy bay was covered by the fire of the shore batteries, which at once opened with a fire so hot that Drake had finally to weigh anchor and stand back to

the eastward. Drake himself had his stool shot from under him, while two of his principal subordinates were mortally wounded at the same time. As the day closed, the English fleet finally disappeared from sight, and those who knew not Drake thought the repulse a final one.

But in these, his latter days, the spirit of Drake's youth arose in him, and at the following daybreak the Spaniards saw the fleet to the westward of the entrance, standing towards that side of the harbor entrance and finally taking an entrance behind the two unfortified islands of Cabra and Cabrita, which then, as now, marked the western side of the entrance to the port. These islands masked the anchorage of Drake's vessels from the fire of the town batteries.

From this protected anchorage the frigates could be seen close under Sta. Elena battery, so placed by Tello that if the worst came the treasure in the citadel could be put on board and the ships take to sea. Drake determined upon a night attack by boats, with the unfortunate determination of firing them one by one. The first one set on fire so lighted up the neighborhood that the advantage of a night attack was lost, and the boats received the concentrated fire of the batteries to such an extent that the attempt failed with great loss to the English.

Not yet dismayed, the next morning Drake again got under way and worked against the prevailing wind to the eastward, for a favorable position off the entrance. Whatever the others thought, Tello, the commander of the defense, knew Drake of old, and especially of his former bold operations in the harbor of Cadiz. Suspecting that Drake would attempt to force the harbor entrance beyond the end of the boom, he sunk two heavily laden merchantmen at the extremities, and when Drake finally headed directly for the entrance, he sunk in addition two of his frigates, with all their guns, stores and equipment. Once again was Drake thwarted, and finding an entrance barred, he once more came to anchor near the entrance and called a council of war to consider the question of a landing attack. Baskerville and the majority of the council being against the undertaking, Drake finally abandoned all further attempts and sailed away for the Spanish Main and the Isthmus of Panama, at which place he died in the following January.

The best commentary upon Drake's attempts and failures is, perhaps, the narrative of the Earl of Cumberland's successful attack upon the same place a few years afterwards.

George Clifford, Earl of Cumberland, was one of those distinguished adventurers of the Elizabethan era, who, though not without hope and desire for gain, seems to have been actuated quite as much from a chivalrous love of adventure as from any other motive. His social position and ample personal wealth gave him a standing that enabled him to introduce good order and discipline among his followers in the various enterprises initiated by him, and has caused his attack upon San Juan to be considered "as a fine orderly operation of war conducted with no less humanity than gallantry."

The expedition with which we are concerned was the tenth and last that the Earl of Cumberland had formed, and was accompanied by the earl in person as Admiral and Commander-in-chief. Sailing from England on the 6th of March, 1598, with a force of twenty vessels of all sorts, he had for his flagship the famous *Scourge of Malice*, christened by Queen Elizabeth herself and ranking, with its 800 tons, among the very first vessels of the day. His second in command, styled "Lieut-General and Vice-Admiral," Sir John Berkeley, carried his flag on the *Merchant Royal*. As a whole, his force was more formidable, it was said, than any that had heretofore been assembled by a subject of the kingdom.

Arriving at the Canaries, Cumberland took and plundered the island of Lanzarote and then pushed across for the West Indies, arriving at the island of Dominica on the 23d of May. Leaving there on the 1st of June, the expedition proceeded to the Virgin Islands, where the landing parties were organized and drilled.

Leaving the Virgin group the fleet made the eastern end of Porto Rico and coasted along the north shore of the island until the vicinity of San Juan was reached. The sea being calm, a force of about 1000 men was landed on the beach to the eastward of the town and island of San Juan, observed only by a small group of Spanish horsemen.

A day's march after landing brought the English to the inlet already spoken of as the Boqueron, and to a halt, as boats were

wanting to cross to the island. At this time the defenses of San Juan were much the same as at the time of the previous attack, but the garrison that Drake encountered and Tello commanded was much stronger than the one that Cumberland had to deal with. By the disappearance of the Spanish horse Cumberland was led to suspect another approach to the town, and through the aid of a negro guide he discovered the causeway that connected the southeast end of the island of San Antonio with the mainland which was covered, then as now, by the small fort at San Antonio. Cumberland gave his men a few hours rest after darkness set in, and they all slept in their armor on the bare ground. Before daybreak, the attack was made under the leadership of Sir John Berkeley. The causeway was rough and the Spaniards were upon the alert and opened such a hot fire that the English were compelled to withdraw at daylight with a loss of fifty men.

On account of the persistent requests of his subordinates, the Earl of Cumberland resigned the leadership of this assault to his second in command, but history tells of his part in the matter. He could not keep out of the fight, and stumbling along the causeway in the dark, he was thrown off his feet and pushed by accident into the water, and falling on his back, encumbered with his armor, he could not get up and would have drowned had he not been fished up, after some delay, by two of his men.

When finally rescued, the historian relates, he had swallowed so much salt water as to be very sick and was obliged, most unheroically, to spend the remainder of the night sitting in a state of complete exhaustion by the side of the causeway.

The next attack was made on the fort at the Boqueron, now known as San Geronimo. One of the vessels of the fleet was brought close under the guns of this fort; to do this she had to be grounded in front of the fort, but the sacrifice of the ship was thought to be justified by the results, and the fort was reduced to ruins, although the vessel was stranded and became a wreck. The assaulting party effected a landing across the Boqueron, and after a march of a mile—the town was much smaller in those days—the town was reached and found to be deserted by all of the population capable of bearing arms, who had repaired to the



Morro. This castle was finally reduced, and with the town and the rest of the defenses became subject to the English.

It was Cumberland's original intention to retain possession of San Juan as an English colony, but climatic diseases, principally of the nature of yellow fever, so reduced his command that first he returned to England, leaving Sir John Berkeley in charge, and then Berkeley followed, joining his admiral while still on his homeward route.

A later and unsuccessful attack was made upon San Juan in 1797 by a combined expedition under Rear-Admiral Henry Harvey and Lieut.-Gen. Ralph Abercrombie. The defenses of San Juan had been increased by the redoubts of San Cristobal, and the attack by shore and sea, principally by bombardment, was so ineffective and the assaults so unsuccessful that Abercrombie reëmbarked with his force on the 30th of April, after a loss of 225 killed, wounded and missing on the part of the English.

#### SANTIAGO DE CUBA.

In 1741, an expedition was formed in Jamaica to attempt the capture of Santiago de Cuba. It consisted of a fleet of eight ships of the line, one of fifty guns, twelve frigates, some small craft and about forty transports. The fleet was under the command of Vice-Admiral Vernon, with Rear-Admiral Sir Chaloner Ogle as second in command. The land forces numbered about 3400 men and were under the command of General Thomas Wentworth. With this land force were remnants of the American regiment, originally numbering, 2500 men. One of the Washingtons accompanied this expedition, and Mount Vernon owes its name to the naval Commander-in-chief of this expedition.

Guantanamo Bay was selected as the general rendezvous of the expedition, and by the 18th of July the vessels of the expedition had assembled in that bay, which was named by Vernon "Cumberland Harbor," after the second son of the reigning monarch, George II.

Guantanamo Bay, which is one of the best and most secure in Cuba and the West Indies, is about forty miles from the entrance to the harbor of Santiago. It is divided into a shoal upper bay and a fine deep-water anchorage in the bay proper.



Upon the arrival of the expedition, which took possession of the bay without opposition, the smaller ships of war and transports were sent up the harbor as far as the depth of water permitted.

The usual council of war was held upon the day after that of the arrival of the expedition, and considering, from the best information available and from a naval reconnaissance, that a direct attack upon Santiago from the sea was impracticable and that the entrance was closed by a substantial boom, an attack overland from Guantanamo Bay was decided upon.

The land forces consequently disembarked and encamped at the mouth of the Rio Guasco, about three leagues from the entrance to the harbor, and a detachment of 150 Americans and negroes, under Major Gunster, penetrated the interior as far as the village of Elleguava, where it remained for some time until, for want of support, it fell back to the main encampment.

There was at this time assembled in Havana harbor a Spanish fleet consisting of twelve ships of the line, which constituted an active fleet in being and required the attention of Vernon. Consequently, he sent some of his faster cruisers to watch off Havana Harbor, while with others he blockaded Santiago, and with six of his largest vessels he formed a line across the wide entrance to Guantanamo Bay, to cover the transports within.

Santiago was not over four days march from Guantanamo Bay, by troops lightly equipped, and was almost defenseless on the land side. There was no force of any size to oppose the English troops, but Wentworth did not advance from his encampment. The country was thickly wooded, it is true, and difficulty would have been found in dragging the guns overland, but still it was practicable to have made the march with lightly-equipped troops.

But with the delay came sickness and a letter from General Wentworth expressing his doubts whether to advance farther or to subsist his forces much longer in the part they possessed.

The vice-admiral in person made a reconnaissance of the entrance and outer works of the harbor, and found little hope of capturing Santiago from the sea. Councils of war followed each other in quick succession, and finally, mutually discour-

aged, the troops were reëmbarked on the 20th of November and the fleet returned to Jamaica.

This campaign has been severely and not unjustly criticised : first, because the attempt was made upon Santiago rather than upon the more important city of Havana, where the enemy's fleet was lying ; secondly, because the Spanish fleet in Havana was not masked by the entire force of Vernon ; and thirdly, because General Wentworth remained inactive for about three months within less than sixty miles by land from their objective. There seems to be little doubt that more men were sacrificed by delay in that sickly climate than would have been lost by active operations.

The conquest of Cuba seems to have been the desire of the English ministry, for as late as the 23d of September, 1741, Governor Shirley, of Boston, made a speech inviting New England settlers to go to Cuba, promising grants of land to intending settlers. This seems to have been the first of the movements (allied to filibustering) towards Cuba from North America.

One of the great evils of this expedition was a want of harmony and coöperation between the army and navy, especially between the two leaders. On the 31st of October, the Duke of Newcastle wrote to Vice-Admiral Vernon as follows :

"His Majesty has commanded me to acquaint you and General Wentworth that he sees with great concern the heats and animosities that have arisen between his officers by sea and land, contrary to his orders, whereby the service cannot but greatly suffer ; and I am ordered, to recommend to you in the strongest manner carefully to avoid the like for the future, and that in case of any difference of opinion all acrimony and warmth of expression should be avoided."

In 1748, a naval attack was made upon Santiago de Cuba by a fleet under the command of Rear-Admiral Sir Charles Knowles. The entrance of the harbor was closed by a boom backed by vessels held ready to be used as fire-ships. The defenses had been strengthened since 1742 and the Spaniards were aware of the intended attack. The nearest forts were cannonaded by the English and the fire was returned, and the leading ship finding that it was impracticable to proceed, reported to the admiral, who finally withdrew and returned to Jamaica.

THE SIEGE AND CAPTURE OF HAVANA IN 1762.

In January, 1762, war was declared by England against the kingdom of Spain, and the existing ministry of Great Britain found themselves obliged to adopt the plans for the war formulated by the elder Pitt, who had shortly before resigned from the ministry of which he had been premier.

The plans adopted included a campaign in the West Indies, with the settlements of the Spanish in that region as objectives. Havana was the main objective, being then the centre of their colonial trade and the key to their American possessions.

The Earl of Albemarle was selected for the chief command of the land forces, and Sir George Pocock, Admiral of the Blue, was appointed to command the fleet, while Commodore Augustus Keppel, a brother of the Earl of Albemarle, was appointed second in command and placed in immediate charge of the fitting out of the force in England.

The British ministry lacked the impelling genius of Pitt, and the sailing of the expedition from England was unnecessarily delayed until the 5th of March. This delay caused the principal operations to take place in the summer, and might easily have caused the siege to last until the hurricane season—so dangerous to the sailing ships of that day on a shore like that to be found on either side of the entrance to the harbor of Havana.

The army was to consist of 16,000 men, but of these but 4000 were to sail with the Commander-in-chief from England. Eight thousand were to join in the West Indies and four thousand were to be furnished from America by Sir Jeffrey Amherst, then stationed at New York. Two thousand of these last were to be colonists or provincials, to be raised by General Amherst from the colonies of New York, New Jersey, Connecticut and Rhode Island, with a quota from each according to population.

Sir George Pocock sailed with but five line-of-battle ships, the remainder of his naval force was to be constituted from the forces under command of Admiral Rodney and from a squadron under Captain Hervey, both being in the West Indian waters.

Upon the arrival of the fleet at Barbadoes, Admiral Pocock,

hearing of the capture of Martinique by the combined forces of General Monckton and Admiral Rodney, repaired to that place. The news of the capture of Fort Royal in this island had been taken home by Major Gates, the senior aide-de-camp of General Monckton. Gates afterwards came to greater celebrity during our Revolutionary War, as the American general in command at Saratoga.

By the combination effected at Martinique, the army amounted to. over 11,000 men and the fleet of forty vessels of war of all classes, with 156 store-ships and transports. Admiral Pocock carried his flag on the *Namur*, of 90 guns, and Commodore Keppel on the *Valiant*, of 74.

Sailing from Martinique on the 6th of May, and joined off Cape St. Nicholas by the contingent from Jamaica, two routes to Havana presented themselves to the admiral: one the ordinary and most secure route along the southern side of Cuba, and the other on the north side of Cuba, little known, unmarked by any aids to navigation and bordered on either side by dangerous shoals—by means of what is now known as the old Bahama Channel, which was in length about 600 miles. During our late war, an accommodating enemy kept this channel lighted on the Cuban side, while the neutral government of the colony of the Bahamas marked in the same way the northern edge.

As celerity was essential to the success of the enterprise, the admiral chose the latter as the more speedy, even though more hazardous, route.

To keep the formation compact and well within control, the combined fleet was formed in seven divisions and without pilots and with, as a principal guide, an old chart of Lord Anson's, beacon lights and ships were placed upon the principal cays and shoals for day and night passage. While in this channel two Spanish vessels of war were captured, but a schooner escaping at the same time carried to the governor of Havana the news of the approaching fleet and threatened attack.

The composition of this large fleet, as it passed through the old Bahama Channel in a direction opposite to that taken by our own Santiago expedition through the same channel, is interesting and worthy of mention. The expedition sailed in a

formation of seven divisions and in three columns. The van division consisted of five men-of-war, Sir George Pocock leading in the centre with his flag on the *Namur*. The flanking columns were also men-of-war, the rear being brought up by three vessels of the fleet.

The central column consisted of transport and store-ships, hospital and artillery ships, two ships with negroes from Jamaica, some brought as slaves and some loaned by the colony, four ships with fascines, three with horses only, and six with the baggage of the general officers. During the delay at Martinique, the men had been employed in cutting wood for fascines, the soil in the vicinity of Havana being very thin.

The land forces had been divided into five brigades, and exclusive of the reinforcements that came later from New York under Brig.-Gen. Burton and the detachments from Jamaica, amounted in round numbers to 12,000 men. Among the officers of these forces whose names became known afterwards in our Revolutionary War were the Adjutant-General, Col. William Howe and the Quartermaster-General, Col. Guy Carleton.

The expedition had fine weather in passing along the north side of Cuba, and on the evening of the 5th of June, 1762, cleared the channel and sighted Matanzas. On the 6th, the fleet hove to about five leagues to the eastward of Havana to make the necessary preparations for landing. Commander Keppel was appointed to take charge of the landing operations, having assigned to him six ships of the line and some frigates; the flat-bottomed boats to be used for landing the troops being manned by men from the fleet.

The admiral here parted company from the rest of the expedition, and taking 13 ships of the line, 2 frigates, the bomb-ketches and 36 store-ships, ran down off the harbor, finding inside twelve Spanish ships of the line and several merchant vessels. The next morning the admiral embarked the marines in boats and made a show of landing, about four miles to the westward of Havana. About the same time, the Earl of Albemarle landed with the whole army between the small rivers of Bocando and Cojimar, about six miles to the eastward of Morro Castle. The army landed in three divisions, in command of Lieut.-Gen. Elliot, Major-Gen. Keppel, and Brig.-Gen. Howe.

Lord Albemarle going ashore in the barge of the *Valiant* with Commodore Keppel.

While the disembarkation was going on the enemy made a show of resistance, but they were soon put to flight by a fire from two of the ships. A large force making their appearance they were dispersed, and the small redoubt at the mouth of the Cojimar River silenced by Captain Hervey in the *Dragon*, and the army landed without further disturbance.

The greater part of the Spanish infantry and all their cavalry took post at the village of Guanabacoa, in order to prevent the British forces from getting around the head of the harbor and thus attacking the city on the west side. This force was dislodged by the advance of the British and the village and grounds of Guanabacoa held under Gen. Elliot from thence, forth, to cover the besieging parties from attacks from inland.

On the 10th, Lord Albemarle wishing to occupy the hill of the Cabanas, then surmounted only by a small redoubt, had a feint made upon the fort at the Chorera, which diverted the Spaniards so that the castle at Chorera was abandoned while the ridge of the Cabanas was carried with very little loss.

As the chief fortification of Havana and of its harbor entrance was Morro Castle, the principal attack was directed against this work, the operations being placed in charge of Major-General Keppel by his brother, the Commander-in-chief.

At this time, the garrison of Havana consisted of 810 cavalry, 3800 infantry and artillery, and 9000 sailors and marines belonging to the fleet, making the number of the Regular forces over 13,000; to these were added 14,000 militia and people of color, making a total force of 27,610 men of all arms and kinds.

Morro Castle being of the greatest consequence was, on account of the scarcity of Regular artillery, garrisoned by and given in charge of the navy, under the command of Don Luis de Velasco, captain of the *Reyno*, ship-of-war. All the English historians agree in saying that he discharged this important trust with a courage and fidelity that has rendered his name immortal.

The Marquis de Gonzales, captain of the *Aquilon*, ship-of-war, was appointed second in command and proved to be worthy of his chief.



On the 8th of June the Spaniards sunk one of their largest ships in the narrow entrance of the harbor, and on the 9th a second ship was sunk at the entrance and a boom was placed across the mouth of the harbor. At a still later date the harbor was completely closed by the sinking of a third vessel. This, of course, practically threw out of action the entire Spanish fleet, which was not far in number of vessels of the line from the English fleet.

I cannot do better than repeat the comment made upon this policy by a writer of those days who says, "though the issue of a naval battle might have proved unfavorable (to the Spaniards), yet a battle tolerably maintained would have disabled our armament and perhaps have been a means of preventing the success of the whole enterprise. The loss of their fleet in this way might possibly have saved the city; but the city once taken, nothing could possibly save the fleet."

The main battery constructed in the siege of Morro Castle was placed as near as the cover of the surrounding woods permitted, and at a distance of only 250 yards. The soil was so thin that it was with great difficulty that the besieging parties could cover themselves in their approaches, and the battery had to be erected of wood and other inflammable material, including old rope cables from the ships, etc., and bales of cotton brought from Jamaica. The supply of water was scarce and brought from a distance, and late in the siege they had to have recourse to water from the ships.

In addition to the battery bearing on the Morro, another battery of howitzers, on the Cabanas, was erected to bear upon the ships in the harbor, to stop their fire upon the men working in the approaches. This eventually caused the removal of the Spanish fleet to the upper end of the harbor. On the 13th, an actual landing was made at Chorera, to the westward of Havana, by grenadiers and light infantry, under Col. Howe, of Brandywine fame, to which was added a force of marines from the fleet. This engaged the attention of the enemy to that side and it was off this part of the shore that the main body of the English fleet remained at anchor.

It was not until the 29th of June that the batteries were ready to open fire upon the Morro and shipping. Early on this



day, however, an attack was made upon the British position on the Cabanas, by a large detachment from the city, which had landed near the Morro. This attack was repulsed with great loss to the Spaniards.

On the 1st of July, a combined attack was made upon the Morro by sea and land. The shore batteries of guns, mortars, and royals, opened fire from four positions, while the ships *Cambridge*, *Dragon* and *Marlborough*, under Captain Hervey as senior officer, took position close to the shore and opened fire at the Morro at 8 A.M.

This was continued until 2 P.M., when the ships were obliged to haul off. The *Cambridge*, which was within grape-shot distance, had lost her captain, 24 men killed and 95 wounded, while the losses on the other ships brought up the total casualties to 42 men killed and 140 wounded. The position of the Morro on a high and steep rock gave a plunging fire on the ships, to which was added the cross-fire from the Punta and other batteries on the town side. The fire from the ships, however, proved of assistance in relieving the fire upon the landworks. The *Stirling Castle* was ordered to lead until the first ship was properly placed and then to make sail off, but this was done so badly that the captain was court-martialed and cashiered for his action, after the siege.

The fire of the land batteries continued on the 2d and 3d of July, but on the latter day the principal battery before mentioned caught on fire and was entirely destroyed.

By this time, the climate, aggravated by bad provisions and scarcity of water, began to tell on the troops, and no less than 5000 soldiers and 3000 seamen were down with various complaints.

The mistake of erecting the main batteries too near to the Morro was remedied in the erection of the new batteries, which were placed at double the distance. Fire was continuous from these batteries, one of which was again destroyed by fire, and the sappers and miners approached the walls of the fort, though much hindered by a ditch seventy feet from the edge of the counterscarp, upwards of forty feet of that depth being sunk in the rock. Fortunately, there was a thin edge of the rock left to cover the extremity of the ditch from the sea, and by means

of this ridge the miners passed with difficulty to the foot of the wall.

On the 21st of July, it becoming evident to the Spaniards that unless something effective was soon done the Morro would fall, the governor determined to make an attack upon the besieging work on the Cabanas, the key of the position, and driving out the English, destroy them by fire. Had this succeeded, with the sickly condition of the troops and the delay in the arrival of the North American contingent, there is little doubt that the siege would have been raised. The attacking party came from the town, landed on the Cabanas side and began the attack at four in the morning. This attack was repulsed with heavy loss, Col. Sir Guy Carleton, Brigadier-General of the day, who was wounded, receiving great credit for his active services in the repulse.

On the 28th of July, Brigadier-General Burton arrived with the first division of the troops from North America, which had sailed from New York on the 11th of June, but on the 24th of July five vessels of his expedition were wrecked off the Bahama Straits.

On the 30th of July, the mines under the walls of Morro were fired, making a breach that was considered practicable, and an assault was ordered. Don Luis de Velasco defended his charge to the last, and in endeavoring to rally his men was mortally wounded while coming up the slope of the rampart. In such high esteem did the King of Spain hold this brave officer and his brave defense, that he not only ennobled his son by creating him Viscount Morro, but also ordered that there should always be a ship in the Spanish navy named the *Velasco*. The last vessel to hold that name continuously in the Spanish navy was captured by the fleet under Admiral Dewey at Manila, on the 1st of May, 1898.

Marquis Gonzales, the second in command, was also killed in the assault, which was successful after great loss to the garrison. The possession of this fort cost 44 days of hard labor from the time of the first operations, during which time the Spaniards lost 1000 men. The Morro, with its neighboring works, mounted above 144 guns and 11 mortars.

On the 31st of July and the 1st and 2d of August, the Span-

ish opened a heavy fire from the north side upon the Morro and sent down a 70-gun ship into the entrance and moved her opposite the Morro, to assist in the cannonading.

On the 2d of August, the second division of transports, which sailed from New York on the 30th of June, arrived off Havana. This force, with the previous arrivals, was ordered to the west side of the entrance, where direct operations upon the town were proposed. These troops included 2000 provincials from New York, New Jersey, Connecticut and Rhode Island. In the first detachment, among others was Israel Putnam, then a Lieutenant-Colonel of the Connecticut Provincial Regiment, while in other detachments many other names are found who served in the Revolutionary War. Part of the second detachment, including 150 provincials, was captured by a French naval force on the 21st of July. As the New York detachments arrived so late in the siege, their loss from casualties was small, being but seven killed and wounded, but the losses by disease were very large.

From the fall of the Morro until the 13th of August, batteries were established on the west side of the entrance and the fort at the Punta silenced. Finally, on the 13th of August the capitulation of the city and fleet was agreed upon and duly signed.

By the capture and destruction of the vessels in Havana, Spain was deprived of nearly one-fifth of her whole navy, while in prize money the English army and navy acquired an amount of three millions sterling, the Earl of Albemarle and Sir George Pocock each receiving nearly £123,000, while the proportion of each enlisted man and private was less than £3 apiece.

The great disproportion between the prize money of the superior officers and the men in the navy was a source of discontent in the service, and one of the grievances that, in later days, caused the mutinies in the Napoleonic wars.

Apropos of this, an old anecdote was told in these times of a sailor who, previous to an engagement, was seen by a lieutenant to be, as he thought, hiding behind the gun. "You are funkng, sir!" said the officer. "No, I am not," said the seaman, "I am praying." "Praying, sir! what are you pray-

ing for?" inquired the officer. "Why, sir," said the sailor, "I'm praying that the enemy's bullets will be shared out like the prize money—that most will go to the officers."

The harmony and unity existing between the land and naval forces at the siege of Havana contributed greatly to the success of the undertaking and sets an example not to be ignored to the present day and to our own country and sister services.

The Earl of Albemarle, in his report, stated that "Sir George Pocock and Commodore Keppel have exerted themselves in a most particular manner, and I venture to say that there never was a joint undertaking carried on with more harmony and zeal on both sides," while Vice-Admiral Pocock said, "It will be as needless, as almost impossible, for me to express or describe that perfect harmony that has uninterruptedly subsisted between the fleet and army from our first setting out. Indeed, it is doing injustice to both to mention them as two corps, since each has endeavored, with the most constant and cheerful emulation, to render it but one."

In concluding the account of this siege, let me quote from the biographer of Commodore Keppel, who says that

"Never in this or any preceding war had so valuable and important a conquest been achieved; but dreadful were the sufferings and great the mortality attending it. By Lord Albemarle's official return, on his leaving the Havannah, of the casualties of the army from the 7th of June until the 8th of October it appears that 560 men were killed or had died of their wounds, and 4708 had perished from sickness."

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Out of the six operations mentioned in this article, by the English against San Juan, Santiago de Cuba and Havana. but two were entirely successful, so that a comparison with our own late war in Cuba and Porto Rico is not to our disadvantage. But I trust that there are other teachings in such historical accounts than that of self-congratulation. The obligations that have arisen with our new dependencies are greater than any strength that arises from them, and it is well to study the necessities that will arise for their maintenance and defense.

History, now and ever, teaches us by example, as much in

the military as in political art. As Prince Bismarck once said in his blunt way, "Fools say that you can only gain experience at your own expense, but I have always contrived to gain my experience at the expense of others."

To this remark let me add one of a French writer that "Peace is the dream of the wise ; war is the history of man."

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#### THE MILITARY SCHOOLS OF GREAT BRITAIN.

Some changes are foreshadowed in regard to our great military schools. It is a well-known fact that Woolwich Academy, the "shop" so dear to many generations of gunners, is altogether too small for the work it has to do. This daily grows more and more marked with the increase, present and prospective, of the great regiment. Where shall the additional educational establishments be provided? The extension of the Academy is hardly possible, for the ground at Woolwich is very limited. Strong opposition will no doubt be offered to the latest idea, which is to enlarge Sandhurst and make it the *alma mater* for all classes of young officers other than those destined for the artillery scientific branches properly so-called. In other words, the cadets for the field artillery would be sent to Sandhurst, where there would be presumably a special department for them. But there is reason for believing that under the scheme in view every cadet in the earlier stages would be for general service, this definite allocation to artillery, cavalry, or infantry being made towards the end of his course of instruction. This seems at first sight a serious blow aimed at the artillery tradition, that of a select corps trained and kept apart from first to last ; but there is much to recommend the change. Of course gunnery, the highest branch of artillery, must have a special and distinct existence, but there would be great advantage in creating a closer bond between the three arms so constantly employed together in the field. If the youths that are to officer these three arms lived together, and worked together during the receptive age, they would gain a more intimate knowledge of each others' value and how it might best be utilized.

## THE REGULAR ARMY.

*(From the Washington "Evening Star.")*

A COMPETENT military critic, who has carefully studied the new army reorganization act, declares that it will subject the Regular military establishment to greater and more radical changes than have ever occurred at any one time in its history. He asserts that not only does it involve more careful and intricate labor on the part of the War Department officials than the reorganizations of 1866 and 1869, but promises, especially as regards the lower grades, to result in a more general rearrangement of the personnel of the army. Aside from all this, however, he claims to voice the general sentiment of the army in stating that apart from some minor details affecting the status of a few particular classes of officers, the new law is most satisfactory as a whole, and will result in unmeasured good to the military service, both with respect to general efficiency and specific individual advantage.

Under it he states that the Regular army will at last be organized on the lines recommended and urged by military authorities for the past twenty-five years, and promises that degree of elasticity which would be equal to meeting the emergency for a quickly required army, pending the naturally tardy work of organizing and equipping volunteers.

Speaking of the proposed changes in general, he declares that they involve not only the introduction of a large, entirely new element into the Regular service, but provide for the fortunate selection at this time of that new element from the experienced and well-trained younger officers of volunteers. In this respect the Regular army is delighted. As a rule in times past enlargements or curtailments of the Regular establishment have worked grave injustices to veterans who, having no political backing and relying upon military service alone, have been jumped and overslaughed by younger men. This was especially so in 1866, when volunteers twenty-six years of age were appointed colonels over men who had graduated from West Point in the forties.

But it is not so now. While providing openings in the

Regular army for aspiring young volunteers, the Regular officer already in the service will be carefully guarded in his rights.

#### DERANGEMENTS OF REGIMENTS.

Nevertheless it will cause extensive derangement of the personnel of regiments and will, in a great measure, tend to upset that regimental *esprit* which prompts officers to espouse the respective regimental claims of particular achievements and traditions. This condition relates exclusively to the line of the army. The personnel of the staff will not be materially affected, inasmuch as the additions to the staff being all at the bottom will enable the older set to be advanced each in his own corps or department, wherein each may cling to that *esprit de corps* which all are wont to maintain and cherish. Of course, so far as the three arms of cavalry, artillery and infantry are concerned, they will remain separate and intact, unmixed with each other, as in 1866, and the votaries of each may still contend and banter with each other over alleged special merit and usefulness. But on the creation of new regiments the doubling of the cavalry strength, the one-third increase of the artillery, and the one-fifth increase of infantry, the changes in the personnel of regimental organization must necessarily be very decided.

For example, of the 1966 line officers of all grades on the Army List of to-day 860 will be promoted by the new law. Of the total 469 officers of cavalry 270 will be promoted, of the 349 artillery officers 250 will be advanced, and the same will be true of 340 of the 1147 officers of infantry. As far as practicable promoted officers will be assigned to their old regiments, but naturally obstacles to this plan will arise by reason of the scattered distant stations of officers, and besides, it may be decided to make a general redistribution of regimental officers so as to preserve a system of equalized rank and experience in both old and new organizations. Officers who desire especially to waive advantages of regimental status and to remain with old regiments, in whose service they have long shared, will doubtless be gratified, but all in all, the wholesale promotions bid fair to cause a general upheaval of regimental personnel.

#### EXTENSIVE CHANGES.

Some idea of the extensive changes likely to occur in this regard may be had from the statement that over 2500 new



commissions must issue, one-half of which will be for appointments from the volunteer force and civil life to the 920 vacancies of first and second lieutenants of the line and 288 available vacancies of first lieutenants, captains and majors of staff, not including the 200 two-year service volunteer surgeons and assistant surgeons, the twenty-four retained volunteer quartermasters, the thirty dental surgeons and the veterinarians provided for. The vacancies to be caused by promotions and retirements and appointments to fifteen brigadierships will create new places to be added to those for which original appointments of volunteers may be made, excepting, of course, the number of vacancies to be reserved for the annual promotion of meritorious non-commissioned officers of the Regular army, and for this year's graduating class of West Pointers. The civilian aspirant, though he be handicapped by the preference to be given to volunteer officers, will not be debarred altogether, as aside from all considerations the President is vested with full discretion to proceed according to merit and fitness of applicants.

#### INTERESTING COMPARISONS.

Usually in times past after our wars, reorganization of the army meant simply reductions and muster out; but now it calls for both muster out and muster in—for disbandment of a volunteer or temporary army, and the replacing of it by a newly recruited and entirely reorganized permanent army. Not only will the twenty-five new regiments have to be withdrawn from active hostile campaigning, brought home, mustered out and paid off, but fifteen new regiments of Regulars must be quickly assembled to take their places. In estimating the serious task devolved upon the War Department by the delayed passage of the new army law, it is not forgotten that after the great Civil War the rapid disbandment of Grant's immense war armies of nearly a million men was rightly proclaimed a masterpiece of military administration. At that time within the brief period of four months between May and October, 1865, over 800,000 volunteers had been mustered out and returned to their families.

That, however, was after peace had been accomplished. No longer were men needed to campaign, as now, against a hostile enemy, and all the disbanded troops were in adjacent localities,

within comparative stone's throw of the national capital, instead of, as now, over ten thousand miles distant. Now, the change affects the army to be mustered out and that to be enlarged and reorganized. More than that, the disbanded army must be withdrawn and replaced with due regard to military precautions and legal obligations—a task, indeed. Aside from this some idea of the immense amount of labor that will be involved in the required changes, may be conceived by the knowledge that for nearly every vacancy for which those outside the Regular army will be available, there will be hundreds of applicants, whose papers must be handled by the War Department. The President and Secretary of War will, of course, be mercilessly importuned by the friends of the legion of military aspirants before making the fifteen hundred or more appointments to fill vacancies, from veterinarians up to judge advocates, all of whose commissions they must sign. Besides the task of preparing these additional appointments, the War Department must prepare the twelve hundred or more promotions caused by the new law, in each case making out a new commission for the President to sign, the Secretary of War to countersign, and the Adjutant General to record and certify.

#### UNPARALLELED TECHNICAL WORK.

President McKinley will sign in the neighborhood of 3000 new commissions, including the new commissions of commanding generals and all the twenty-one general officers, excepting the two present major generals. Indeed, not only will all the generals, nearly all the colonels and lieutenant colonels, and a majority of the majors within the next year or two bear commissions signed by President McKinley, but a large percentage of the entire army before March 4, 1905, will hold their authority by his "trust and confidence" in their "patriotism, valor, fidelity and ability." Never before in the history of the Regular army has any one administration had so much directly to do with its personnel, and never before in the history of modern armies has a national war office had thrown upon it so much technical labor to be performed within such a limited, brief period.

Nearly all the officers of cavalry and infantry, and many of the artillery officers who are to be promoted and assigned to

new regiments, as well as the great bulk of those who are to be promoted in and transferred to and from the old regiments, are in the Philippines, Cuba and Porto Rico. They are all more or less remotely separated into minor garrisons, and the greatest care will be required to secure expedition and avoid confusion and error.

Then, again, the enlisted men for the new regiments must be quickly enrolled throughout the United States, assigned, uniformed and organized, under command of a sufficient number of officers, who must be somehow found in this country to take charge of and conduct the newly formed regiments to the Philippines. All in all, it is a heavy task, especially for the Adjutant General's and Quartermaster's departments, but so thorough is the understanding of all requirements and so perfect the system of procedure by skilled officials, no one doubts the final successful accomplishment of the work.

#### NO DREAD NOW.

As a rule army officers in times past have had little occasion to feel elated over reorganization measures. As a rule, indeed, they have contemplated with dread and fear any likely disturbance of the military establishment. They remembered that after the War of 1812-14 the Regular army, which had been increased from less than 7000 to about 38,000, was largely reduced in a manner which cost many officers their commissions. It was so, too, after the Mexican War, when the Regular army suffered radical reduction, and especially so during the whimsical shuffles before 1861 and after 1865, when the Regular army was increased and reduced. But not so now, and especially the younger officers are indeed truly elated. Under the provisions of the new law the average period required to advance from subalternism to a captaincy was from sixteen to twenty years.

Now it is less than seven years for some cavalrymen, less than two years for some artillerymen, and less than five years for some infantrymen. The greatest promotion has been and will be in the artillery, which has trebled in size, so that now under the new law youngsters who were commissioned as second lieutenants in April, 1898, will jump the grade of first lieutenant altogether and become full-fledged captains at a possible age of twenty-three—a possibility which in the peace status army

of twenty, or even ten, years ago, would have produced heart failure on the part of old captains who had waited vainly for promotion before retirement at sixty-four years of age. So great will artillery promotions be that when all the second lieutenants of artillery now in the service are promoted in the next few days to first lieutenants and captains, there will still be 111 vacancies of first lieutenant.

While the cavalry has been doubled in size by the new law, promotion to the grade of captain has not been accelerated as in the artillery. Nevertheless, when all the second lieutenants of cavalry are promoted in the next few weeks there will still be fifty-five vacancies for first lieutenant of cavalry, and the present second lieutenants will enjoy a gain of from five to eight years over the old régime of promotions. In the infantry the second lieutenants will not all be so fortunate. Of the total 270 on the list to-day only 175 are sure of immediate advancement to the next grade, leaving about 95 of those appointed in the past sixteen months to bide their time a while longer, unless they succeed in being transferred to the artillery and cavalry to fill some of the 166 vacant lieutenantcies, as would seem partly right and fair for them, if not for the best interests of the service and the volunteers.

#### QUICK PROMOTIONS.

These quick promotions of young men will naturally give a roseate hue to army career. But it is safe to assume that in years to come history will again repeat itself, and ultimately the usual stagnation of military promotion, which in times of peace always comes sooner or later, will again prevail. A few years ago it was possible to find second lieutenants serving in their tenth and twelfth year of service in that grade, first lieutenants drawing at least three and sometimes four "fogies" of five years each, and captains old enough to die in their twenty-sixth year in that one grade. But whatever comes, such is army life in nearly every generation, and the man who selects it usually does so either with or without good reason, with his eyes open.

While the new army bill will make a bonanza of quick promotions for the younger set, such as has never before occurred in quasi-peace times, the older set will not derive near as much immediate benefit. In the line of the army, for example, of the

860 promotions only fifteen will be of lieutenant-colonels, thirty of majors, and but seventy-five of senior captains. The promotion of fifteen colonels to the grade of brigadier-general, and a possible five additional promotions and retirements of colonels will make a total of 140 field officers and senior captains of cavalry, artillery and infantry—a total of 140 as compared with about 760 promotions of subalterns. In the several grades of the staff department the promotions will be much less than generally imagined, making a total of 220, including eight lieutenant colonels, nineteen majors, thirty-eight captains, and 155 first lieutenants. The Adjutant-General's Department will have but one promotion of a major to lieutenant-colonel under the new law, and the Inspector-General's Department but one promotion to colonel and two to lieutenant-colonel, but the former will have an increase in the lower grade of eleven officers and the latter an increase of seven.

These figures both for line and staff show greater advantages and benefits for the younger set, but the new law holds out to the older and higher graded officers much greater hope for future advancement than to the younger class, whose time for stagnation of promotion is sure to come.

## THE INCONTINENCE OF OUR GENERALS.

*(From the United Service Gazette.)*

IT is to be hoped that one of the outcomes of the present war will be the provision of some measures for the enforcement of the prohibition contained in paragraph 423 of the Queen's Regulations: "Officers and soldiers are forbidden to publish or communicate to the press any information, without special authority, either directly or indirectly. They are not to attempt to prejudge questions under investigation by the publication, anonymously or otherwise, of their opinions, and they are not to attempt to raise a discussion in public about orders, regulations, or instructions issued by their superiors."

This most admirable, and, indeed, if discipline is to be maintained, absolutely necessary regulation has of late become, notoriously, practically a dead letter. The prohibition to communicate information "directly" to the press was, for instance, violated by Sir Henry Colville in his recent explanations published through Reuter's agent; and "indirectly" by more than one distinguished general by the making of speeches which it was very certain would be fully reported in the columns of the newspapers. The mischief which is done by these utterances, the discredit which is cast upon the service generally, and the ridiculous appearance which the speakers themselves present, is, we feel quite sure, not realized by the latter. But it is just because this is the case, that it becomes desirable that the highest authorities should take measures to prevent officers, who have returned from the theatre of war either with a grievance, or with a feeling that a justification of their conduct is required in reply to adverse, and in their belief unjust criticism, making exhibitions of themselves. Some of our generals placed in one or other of the above unfortunate positions have resisted the temptation to attempt any public vindication of their conduct by such means. To them all honor is due. But others, unfortunately, have not been able to exercise the desirable continence of speech or writing.

But closely connected with this question comes that of the publication of despatches from the seat of war.

With regard to this it is laid down in the Queen's Regulations that a despatch containing a concise description of every action, or other specific military operation, irrespective of its magnitude, will invariably be written by the senior officer present on the occasion, and it is then to rest with the Secretary of State for War, "acting on the advice of the Commander-in-chief, to determine what report or despatches are or are not to be made public, and the manner in which those to be published are to be made generally known."

That this discretionary power has during the present war not been always wisely exercised can hardly be denied. Despatches, or portions of despatches, have been given to the world (as for instance those relating to the Spion Kop affair) which should never have been published, unless it were intended to follow up the act of publication by meting out of punishment for which the despatches would have been a justification; while others, describing equally interesting and important incidents, have never seen the light. And yet there must have been despatches received relating to many unfortunate occurrences which have been much discussed. In the Spion Kop despatches we had the opinion of the Commander-in-chief in South Africa as to the conduct of many of the most distinguished officers of the Natal army, but we have heard nothing as to his opinion of the officers engaged in the Sanna Post affair, or in the episode at Nicholson's Nek.

And it is very possible that the injudiciousness with which the publication of extracts from the whole body of despatches has been carried out may have been, in some degree, contributory to the deplorable incontinency of some of our generals. An officer who thinks himself wronged by his commanding officer has, by Section 42 of the Army Act, a definite course prescribed. "If," the section runs, "such an officer, on due application made by him to his commanding officer does not receive the redress he may consider himself entitled to, he may complain to the Commander-in-chief in order to obtain justice, who is hereby required to examine into such complaint, and through a Secretary of State make his report to her Majesty in order to receive the directions of her Majesty thereon." And this no doubt is the course which should have been followed in such



a case as that of Sir Henry Colville in preference to the action actually taken by him. But in other cases where, for instance, the grievance felt was confined to a resentment of criticisms of conduct, such an extreme measure as bringing his complaint before the sovereign could hardly be resorted to; and hence the temptation to seek justification before the public through the medium of the press, not perhaps directly, but indirectly by speeches sure to be fully reported therein.

The fact is that it would be well if the procedure in the navy, in the event of a disaster or other "unfortunate occurrence," were also followed in the army. If, for instance, a ship is lost, the captain, or if he has gone down with his vessel, the senior survivors are invariably tried by court-martial. It by no means follows that blame is therefore imputed to them. They may be, and in fact they often are, honorably acquitted. But the fact that the court-martial has been held has given an opportunity for the hearing of all procurable evidence, and for the delivery of an impartial opinion based on that evidence as to the culpability or otherwise of all responsible. If some such system were in force in the army there would no longer be a possibility, as there notoriously is at present, of an officer blamable for an unfortunate occurrence remaining unpunished, or on the other hand of one really undeserving of blame, being condemned by no one knows exactly whom, may be on wholly *ex-parte* statements, and without any chance of publicly stating his case and replying to the charges preferred against him.

## Comment and Criticism.

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### CAVALRY DRILL REGULATIONS.

I CAN agree with Captain Bigelow in his conclusion in the September number of the JOURNAL regarding the Cavalry Drill Regulations to the effect that the system is the best we have ever had, and the text-book the poorest. In almost every case, however, where he criticises the system, I am unable to coincide with his remarks.

I note, and disapprove his idea, that a guide can determine and move on a straight line without considering two points; that the command of execution mounted should be sharp and quick, etc. As to the latter, I never allow my horses to be halted too suddenly from a rapid gait. A good mouth is too precious a thing to be thus disregarded. A recruit especially is inclined to draw up on the reins suddenly when the instructor gives his command too sharply. The result has to be attained by other means, and it has been done.

The officers in our squadron were all much pleased with the system of the new drill, but regretted the numerous clerical, apparently, errors. At one time it was determined to make a memorandum of the changes desired and submit them to the proper authority for action. The Spanish War intervened, and the project was not carried through.

The most desired changes to my mind are those in the School of the Soldier and Platoon. There should be no doubt as to the exact meaning of the part required for the instruction of the recruit.

For example, par. 100, why when the instructor does not examine the piece does not the recruit "lock" the piece?

Par. 165. Why should not the column of twos be wheeled by twos into line again? etc., etc.

The very important part relating to the firings have been corrected for the rifle, and is supposed to be applied to the car-

bine also, but there are too many errors and other difficulties for young soldiers to readily overcome, and as it does not involve a change of system, it seems to be imperative that the book be revised as soon as practicable.

G. H. M.

Manila, P. I., Nov. 5, 1900.

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THE BATTLE OF NEW ORLEANS.

IN a narrative of the battle of New Orleans (reprint, September JOURNAL) Captain Charles Slack gives an unbiased account of that historic action, and the events leading up thereto, and with the laudable object in view of drawing the military lessons springing out of these events.

In so far as the elements of success to American arms were concerned, Captain Slack omits the most important, namely, the character of the American commander. This omission on the captain's part was not unnatural. It were not possible for him to understand this, unless he studied the career of General Jackson, not from laudatory books, but official records. The imperious disposition, the fearlessness, and the never flagging energy of that officer, were well known before the New Orleans campaign. His ability to make successful combinations of his forces for the object in view was recognized. Out of it all came the priceless belief woven, warp and woof, in the minds and beings of soldiers, drawn from whatever source, when placed under his command, that victory, under his immediate leadership, must come to their arms. This confidence rendered his troops, in a measure, invincible, and it is the supreme test by which generals should be judged.

In his conduct of affairs preceding the final struggle, January 8, 1815, in the vicinity of New Orleans, and in the preparation of his heterogenous army to grapple in death-struggle with the best troops in the world, General Jackson demonstrated in much higher degree than ever before, that he possessed all essential qualities of a successful leader. His course at this time is worthy the careful study of military men. He was perforce, obliged to use any troops that were furnished him. But it was in the energetic measures of defense that he proceeded at once to take, that the good judgment and unconquerable will of the

commander were made evident. Not only was every raw levy impressed with the belief that, under his leadership, each rifleman was equal to the best of Wellington's soldiers, but all, soldiers and the civil community, could see for themselves that what was being done in matter of earth-works and others of defense utilized every possible element available for that purpose, and to the best advantage. Hence, and properly, the prestige of the general grew apace. He was preparing to meet the enemy at all probable points of approach. He was creating anew and out of the elements of nature a system of defensive works, the best that circumstances admitted.

All this was conducive to successful passive defense. But not only was such defense foreign to the temperament of the general, whose main characteristic was aggressiveness, but he knew that to merely sit down in trenches and wait to be attacked, only with the view of beating off the enemy, was calculated to render men timid rather than bold and self-reliant as he wished his to be. Hence the attack on the enemy—a hand-to-hand conflict—on the night of December 23d, and the continual attacks upon his outer lines by night and day, wearing out his troops, inspiring them with respect of the Americans, and inspiring the latter. These daily conflicts were of infinite value to the American troops, raising their morale, showing them that their enemies were not invincible; and, on the other hand, they were detrimental to the morale of the British, showing them that the enemy they must meet were brave men, worthy of their steel, and whom to overcome would demand their highest effort. General Jackson showed his genius as a commander by bringing all this about. As a result, when the attack of the 8th January was made, his troops, not with fluttering hearts but calm confidence, in a chosen position which could not be flanked by the attackers on the left bank of the river, awaited the assault in front of the same foe, the prowess of whose arms they had defied and tested night and day for two weeks. Every man behind that row of cotton bales or other obstacle knew that the penetrating eye of his general was upon him. Let the enemy come on; let him do his worst; if it came to that, the American soldier could but die in the trenches, as to retreat in presence of that general were impossible.

This refers solely to the troops immediately under General Jackson's command on the left bank of the river. On the right bank the militia, true to their practices when led by ordinary commanders, hurriedly left the field at the first and distant appearance of the enemy. Had this defection, which called forth the most scathing rebuke of General Jackson, occurred earlier in the conflict, thus enabling the enemy to enfilade the American line on the left bank, it might have been impossible for that officer, with all his personal magnetism, to hold his troops firm when attacked at such a disadvantage. But in this vital matter inability of the enemy to make suitable combinations operated to his own discomfiture.

WM. E. BIRKHIMER.

Binaug, Laguna Province, Luzon, November 5, 1900.

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THE SEAMAN PRIZE.

The special attention of the officers of the Army is called to the announcement made in this issue, of the generous offer of Dr. Seaman, of New York, to contribute one hundred dollars in gold annually to the Military Service Institution, for award to the one furnishing the best Essay or Thesis on such subjects as he may from time to time submit. The doctor is enthusiastic on the subject of the Military Service Institution, and the donation is made from the fullness of his heart.







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## Military Notes.

### CONDUCT AND DISCIPLINE OF AMERICAN TROOPS.

**A**N English military critic, in a recent letter to the *Overland Times* of India in regard to the military operations in China, devotes a special chapter to the conduct and discipline of the American troops, in which disparagement and praise are about equally commingled. The article, which throws many interesting sidelights on the eventful campaign in China, is, in part, as follows :

In its more limited sense an aspect of discipline prevailed in all the camps, though, if the truth must be said, it was least visible amongst the Americans. If General Chaffee's soldiers puzzled us, their brothers, one wonders what the Muscovites and others thought of them. The English journalists used to speak of them with amazement, admiration and disapproval at the same time. On occasions we felt inclined to take our hats off to every American soldier we saw ; on other occasions the army seemed to us no more than a mob of tramps. The Americans, an officer told me, believe that the fighting unit is the man, not the section, nor the company, nor the regiment. They, therefore, encourage individualism, and encourage it to what men brought up on European military traditions must consider an extraordinary and extravagant length. The American soldier considers himself quite as knowing and capable as his officers, and what is surprising is that the latter take no trouble to make him wiser. Those who are respectful in their demeanor are "reckoned polite men," but the American army does not consider "politeness" as essential to discipline.

When Uncle Sam's force started from Tien Tsin every man was provided with a great coat, blanket, haversack, canteen, water bottle, spare socks, shirts, and so forth. When the army reached Pekin half the men carried nothing more than their rifles, ammunition belts and water-bottles. They had even thrown away their tunics. The retreating Chinese army left

behind tangible evidence of its flight. The victorious Americans left behind similar evidences of their march. The road to Peking is strewn with blankets, tunics, haversacks, marked with the mystic letters U. S. A. I asked an officer whether the men would not get into trouble for throwing away their kit. "What, I reckon"—the American officer still speaks American in spite of rumor to the contrary—"those who cast off their blankets won't get another."

On the march it appeared to me the American soldier pleased himself as to whether he would "hike," as they called it, with his company or by himself. There were always American soldiers wandering up and down the line. They were friendly with the British marines and sailors, and four or five individuals were always to be found attached to our naval brigade. They would march and eat and sleep with us as if no such thing as an American army existed. If small parties of the infantry lost their way or could not find their camp they were in no wise put out. They would bivouac for the night next the nearest troops and move on with them in the morning.

Some of the Americans made a point of washing whenever they could. Others never washed at all. Some carried toothbrushes stuck in the ribbon of their slouch hats. Others had dirty pipes stuck in the same conspicuous place. If there is an aristocracy among the American soldiers, it is the aristocracy of the clean. A man who carried a razor was looked up to with reverence. It was good to get your hair cut occasionally, but there were individuals—"independents"—who looked more like wild poets than fighting men. Their hair hung in long curls on their shoulders and strayed into their eyes.

On one occasion I pitched my modest camp in front of the beat of an American sentry. He watched my preparations for making tea with great interest, and when all was ready, calmly left his post, and, throwing his rifle on the grass, helped himself to a cup.

Then he lingered for about half an hour to discuss American politics. He was a Bryanite and bored me to death.

I think if there had been no fighting all the foreign observers would have gone back to their homes with a very poor opinion of the efficiency of the American troops. Luckily for

General Chaffee and his soldiers there was fighting. When you see an American private advancing under fire you begin to think there is something in the idea that the fighting unit of the future is the individual. Private Silas P. Holt acts by himself, for himself. He and his companions make for a common objective not like stiff, trained soldiers, but like panthers stalking a prey. Their eyes flash; their lithe bodies swing forward. There is murder and deadly intention in every movement.

When the American soldier lies down to fire he does so with the intention of killing somebody. Most troops fire not at the enemy, but in the direction of the enemy. Not so the American.

"Each man drew his watchful breath, slow taken 'tween the teeth,  
Trigger and eye and ear a-cock, knit brow and hard drawn lips."

That is a picture of the American soldier firing on his foe. But allied to their feline stealthiness the Americans in battle have a most reckless courage. An officer will take chances no European would care to take. The field battery was generally to be found in places where nobody, read in tactics, would have dared to put it. General Chaffee and his staff always rode where the enemy was more likely to see and shoot at them. Young and inexperienced correspondents were warned by older hands not to go during an action near prominent buildings, large graves or the American staff.

The British and Americans were the very best of friends. In fact, whenever drinks were handy, which was not often, there was great talk of the Anglo-Saxon alliance. We were not let into all the secrets of the war, but there were probably times when differences arose between the various generals, and on such occasions there is reason to believe the American generally supported the British. One who overheard him told me that once when the Americans sent over to General Gaselee making some request, the latter exclaimed: "Certainly. Nothing we can do is too good for the Americans. I cannot tell you how much we owe to them."—*Washington Star*.

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#### MARRYING IN THE ARMY.

In the British army, so far as the military authorities are concerned, an officer can marry according to his own sweet will,



without your leave or by your leave. In the French army the matrimonial estate cannot be so lightly entered into. From 1843 up to the present time it has been necessary for an officer wishing to marry, to satisfy the authorities that his intended wife possessed in her own right inalienable income of at least 1200 francs (£48) a year. By an Army Circular, dated October 1, 1900, this regulation has now been abolished, but it is still by no means an easy matter for the French officer to get the matrimonial knot tied. The number of forms which have to be filled in, of certificates which have to be obtained, of permissions which must be received, should put to shame even the most red-tape department of our War Office. In the first place the aspirant has to send in a request through the proper channel—and it is a very tortuous one, with many shoals and difficulties to be steered through—to the general commanding the territorial district in which he is stationed. This request must be accompanied by a certificate, giving full details of the station in life “de la future,” and also of the reputation which both she and her family enjoy. This certificate is to be furnished by the mayor of the place where the bride elect resides, and is to be further approved, countersigned, etc., by the sub-prefect of the arrondissement. Independently of this, the general on receiving the request is to cause a number of inquiries to be made, and forms to be filled in relating to the morality of the young lady, and as to whether the proposed alliance is likely to prove a satisfactory one. In satisfying himself on these points the general is to employ the gendarmerie of the district, but only officers, or exceptionally non-commissioned officers, of tact and discretion are to be employed on this delicate duty. They again have their forms to fill in. Finally, when all these many and various documents, forms, and certificates have been collected by the general commanding the district, they will be transmitted by him to the general commanding the army corps, and he again, after making other inquiries and filling in other forms, may, in the case of officers not above the rank of colonel, grant the coveted permission. If the matrimonial candidate is of higher rank further reference has to be made to the War Office, necessitating the filling in of yet more forms, etc.—*United Service Gazette*.

## MOTOR VEHICLES FOR FIELD TRANSPORTATION.

Following the example set by France, it is reported that the military authorities in Belgium are about to inaugurate experiments with motor cars specially adapted for the transport of provisions for the soldiers. The vehicles at present used are very cumbersome, and require six horses to haul them. Even in Italy the military motor-car is receiving attention. In a recent number the *Revista d'Artiglieria e Genio* publishes a long article from the pen of Colonel Mirandoli, in which he deals with the subject of heavy motor vehicles, such as the Thornycroft steam, and discusses favorably the question of their suitability for military transport purposes.—*Army and Navy Gazette*.

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## AUTOMOBILES FOR TRANSPORTING SUPPLIES.

In the German army equal activity is being displayed with regard to the adoption of automobiles. The conclusion has been arrived at that electricity as a motive power must be discarded for war purposes. On the other hand it is believed that the ordinary oil motors will be most advantageously employed, not only for transport purposes on the lines of communications of an army, but also for reconnoitring and orderly purposes, to collect information and convey it quickly to all interested. An important contribution to the literature on the subject has just appeared in a work by Captain von Bauer, an officer on the staff of the railway regiment of the German army and an instructor in the War Academy in Berlin. The author shows by a very detailed calculation, based on data derived from actual experience, that whereas an army of four army corps and two divisions of cavalry, operating at a distance of 80 to 90 miles from its most advanced railway depot, would require for the transport and forwarding of its daily supplies, 4900 men, 8100 horses, and 4050 wagons, the work, if done by motors, could be accomplished by 2200 men and 550 vehicles.—*United Service Gazette*.

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## THE SIBLEY FIGHT.

"The long-haired man from the West may be all right, but there are others," remarked a dark, swarthy, stout man in this

city yesterday. He was Frank Grouard, ex-chief of scouts of the United States army, the hero of a hundred Indian fights and hair-breadth escapes. There is nothing romantic in the appearance of this big, brawny man, his black hair now well streaked with silver, but his exploits are liberally blazoned on the army reports by Crook and Sheridan. Born on an island in the South Pacific in 1850, the son of a missionary, through a stress of circumstances at the age of five he was left to shift for himself. Doing chores about the California mining camps and driving an ore wagon was his training for carrying mail over a lonely star route. He was captured as a youth by Indians and adopted as a son by the famous Sioux chief Crazy Horse, living five years in Indian camps, eating his meat without salt, forgetting the taste of bread and intrusted with the mysteries of "medicine making" by Sitting Bull. This school inured him to hardship and led him to meet and overcome dangers that few men have experienced.

When he saw the telegram in the newspapers relating the tragedy at Crawford, Neb., that sounded "taps" for Baptiste Gaunier, better known as the famous scout Little Bat, he quite forgot the overhanging wonder of the elevated road and the tall buildings to tell his regret at the passing of one who had shared with him many perils. "Did you ever hear of the Sibley fight?" he asked. "If you have not John Finerty can tell you one lively side of it. Little Bat might have told you some more about it, and I might say something myself. Yes, we were all in it up to our chins, and as an all-around close shave I think all accounts agree that it was about the limit. The idea of a man living on a diet of that kind and then getting killed in a saloon fight! It seems tough. Poor Little Bat! Bad whiskey was 'worse medicine' than Sitting Bull ever made in all his years of devilry.

"But you want me to tell about the Sibley fight, do you? It was about twenty-four years ago last July, just about a week before the battle that wiped out General Custer and his entire command. General Crook assigned Little Bat and myself to go north on the Tongue River and meet a body of friendly Crows that were joining us to fight against the Sioux. Much to my regret, Lieutenant F. W. Sibley and twenty-four picked men of

the 2d Cavalry were detailed as an escort. The men were splendid fellows, but all more or less new in Indian fighting. We had been moving north two days when in the dawn of the third morning I discovered the Sioux moving towards the Tongue River thicker than buffalo in the valley of the Platte. I called Bat softly, and when he saw the great painted procession stealing over the plains he said, 'My God! We are gone!'

"I waited until I saw them strike our trail. Immediately the discoverer began circling his horse and waving his blanket, and about ten minutes later every Indian in that section knew that white men were somewhere about. I thought we might possibly get away from them by getting up into the mountains. I told Bat to follow with the men as fast as he could, my idea being to get beyond where the Twin Creek trail crossed our own in the mountains, knowing that the Indians would naturally make a run to cut us off at that point. I suppose I went up the hills rather fast, for at length I got tired waiting at the trail crossing and went back for the soldiers. Imagine my surprise when I learned that the party had stopped to make coffee. Lieutenant Sibley admitted his inexperience in a running fight and had yielded to the importunings of his men, who wanted breakfast. I told him the chances were that none of us would eat any more between that time and kingdom come, as the Indians were probably waiting at the point we should have passed long ago.

"I made a wide detour from the trail as we toiled up the mountain—very fortunately, for they were ambushed for us at the crossing of the trails between two high tree-crowned buttes. If we had passed through that natural gate none of us would have been left to tell about it. As we passed up the mountain to the left they got onto our curves, and about 200 did some wild target practice in our direction. Strange to say, not a man was hit. Correspondent John Finerty's horse was hit, and he came up and joined me in leading the line. The horses were inclined to stampede at the first fire, so at the beginning of the thick timber I ordered the stock tied in a bunch. The Indians tried in every way to draw our fire, but Sibley, at my suggestion, ordered no firing unless they charged right up to us, which is not the way an Indian fights.

"We got to the timber at 10 o'clock in the morning, and we did not fire a shot until 3 o'clock in the afternoon. Every man had his tree, and he stuck to it closer than a brother. Early in the day a leather-lunged Sioux yelled at me that he knew Bat and myself were there, and they were going to have great fun with us—particularly me. I knew what that meant without a map, so I told every soldier to save a good cartridge for himself before surrendering to the fiendish tortures, for the Sioux have very original methods of making a man die by the most painful process possible.

"Along about the middle of the afternoon my red friends who were waiting to entertain me began to get gay and were growing bolder every minute. They had killed all our horses but five, and thought it was impossible for us to get away; in fact, I heard them say so quite frequently in the guttural language of the Cheyennes. White Antelope and a band of Cheyennes had joined the war party, and this chief began riding closer and closer to our trees. Finally he and another chief, who was riding about five yards behind him, came into fairly good range. I could see the color of his eyes as he came toward me. I pulled the trigger of my rifle, and both Indians went down together as a result of the single shot. It was the first shot from our party, and the double tragedy confused the Indians. Then our whole outfit poured in a withering volley, and I told Sibley it was our time to take advantage of their confusion and get through their line back to the gully. I waited till they were all fairly started back through the heavy timber, and, taking the lariat from the saddle of my horse, I followed.

"It was a mile from where we made our stand to the main fork of the Tongue River, and the woods were full of terrible windfalls, and it was awfully hard travelling. The first 200 yards the men had to simply squirm their way through the timber and keep very low. The savages had a comparatively thin line at our rear, as they knew the character of the country, and thought we would be helpless without our horses.

"When I rejoined the men I sent Bat to the lead and I covered the rear. The soldiers took off their boots and stepped from rock to rock in order to leave our trail as blind as possible. About dark a heavy rainstorm, with much wind, came up and

soon drowned out the firing that our foes kept up on our camp. Our policy of holding our fire so fooled them that they did not rush our camp until the following morning, a fact that I learned later. The storm was wild and terrible, we were drenched and the timber began to fall all about us. We kept in a territory where horses could not travel, for reasons of our own, and we hit an unblazed trail over the mountains for the following forty-five hours without a mouthful to eat. Sometimes the squirrel path was so steep that Bat and I had to pull the soldiers up over the rocks with our lassoes.

"The following morning at 3 o'clock we forded Goose Creek, the cold water coming up to our armpits, and at daylight fell in with a scouting party of the 2d Cavalry. Then we went back over the trail and picked up two of our exhausted soldiers that had given up. We had been under a hot fire nearly ten hours, and had travelled fifty miles over a terribly rough mountain country, and during all that time had not enjoyed the luxury of a ration, as we were forced to abandon everything when the Indians sighted us, except our hope and our ambition. Yet we never lost a man.

"Poor Little Bat! He was in the lead. Just to think of it! Now he is snuffed out as the result of a cowardly misdeal in a miserable saloon fight."—*Chicago Record*.

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#### FIELD INTRENCHMENTS.

Nothing in the system of defensive warfare employed by the Boers has been more remarkable than the extensive and skilful use made by them of field intrenchments. During the earlier months of the war, when ample time was at their disposal to perfect this means of defense, every position taken up by the enemy was carefully, systematically, and elaborately covered with a network of trenches constructed, for the combined purposes of defense and shelter, with consummate skill, and with sectional dimensions of a magnitude unattained hitherto. The immense value of these intrenchments to the Boers as a means of defense cannot be disputed, nor the completeness of the shelter they afforded. It was entirely due to them that the losses of the enemy in Cronje's laager at Paardeberg, as well as



in the lines along the Tugela, and in other fortified positions, were almost insignificant, notwithstanding the storms of lyddite and other destructive shells with which they were bombarded for days together. We have long understood in our service the importance of intrenchments of sorts in the field, and the strengthening of a defensive position by such means is carefully inculcated as an indispensable primary duty in preparing for defense; but both the value of the cover afforded by the regulation trench, and the means provided for making it, are paltry when compared with the effectiveness secured by the Boers, and the means they employed. As to their means it must be admitted that they were unique, since they commanded an unlimited supply of native labor, using the ordinary farm implements to which they were accustomed. Such a supply of labor it not at the command of European armies, in which the work of intrenching must be performed by the troops themselves, using such tools as may form part of their military outfit. It is important to see that these tools are thoroughly suitable for their purpose under the conditions of defense now confronting us.

"Intrenching implements" form a regular part of the personal equipment of the British infantry soldier, in common with the equipment of the same arm in other European armies. These implements consist of a small spade, and a small pick with axe-head, carried in leathern frogs on the waist-belt. Each infantry soldier receives one of these articles, but not both. The strong, handy, and ingenious "Slade-Wallace" implement, which was superseded by the existing patterns chiefly because it could not be carried conveniently, was a composite tool intended to perform the work of both pick and shovel, and a soldier carrying one of them was completely equipped for light entrenchment work even in hard ground. With the present tools two men acting together are necessary for the performance of such work. This is an obvious and serious bar to their efficiency. But the whole of these implements are so small, light, and comparatively frail, and their practical usefulness in consequence so limited, that they may fairly be called "toys," with respect to the work henceforth to be performed. If the lessons of the South African War are to bear fruit, the regulation trenches for a defensive position will in future be of such



dimensions that, for their preparation, the "intrenching implements" carried by the infantry will be absolutely valueless. The medium-sized implements carried by the regimental transport will also be found too small and light. The work to be done will demand an adequate supply of full-sized spades, shovels, and picks to be carried by the regimental transport, supplemented by a further supply to be furnished and used by parties of the Royal Engineers.

But, if the soldiers' little implements are unsuitable for assisting in the heavy work of intrenching a defensive position, is their retention justifiable on the ground that they may, on rare occasions, be useful in making shallow trenches, or small rifle-pits, to afford partial cover to men of an attacking force? In most countries there will be found natural or artificial obstacles sufficiently large to afford cover to men at all but very short ranges. If an attack, more especially a frontal attack, be made over ground devoid of cover, the advance would be pressed with all the rapidity possible, and to attempt to dig out cover at any point would merely expose the men to greater risk, or afford them an excuse for lagging behind, if so tempted. Another very important aspect of the case arises out of the necessity that exists for making the field-service equipment of the soldier as light and convenient as possible, with a view to increased mobility. It is important to interfere as little as may be with the freedom of the man's movements when marching, or with his ease in the various firing positions. In this respect the small implements carried by the men are much at fault, being inconvenient to carry, over-crowding the waist-belt and incommoding the wearer. The dead-weight they add to his burden might with great advantage be replaced by its equivalent in ammunition, the replenishment of the latter having become a matter of such serious moment, from the immense difficulty attending it, in a fighting line advancing on a position under heavy fire.—*Army and Navy Gazette*.

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AUTOMOBILES IN AFRICA.

Col. R. E. B. Crompton, the well known electrical engineer, has recently delivered an interesting address in London on the

use of traction engines in South Africa. When Lord Roberts wanted to put heavy guns into a position which was difficult, he always sent for traction engines. The engines did twice whatever the Boers did, and twice whatever the English sailors did, although the latter had by pluck and muscle got guns, weighing 5 or 6 tons, into difficult positions. The lesson of the war as regarded automobilism was striking. The whole of the Transvaal was one mass of dead animals; it was impossible to feed them, and they died of starvation. The great outbreak of enteric fever was caused by the mass of dead and dying animals, but there was not a dead traction engine in the whole of South Africa. To show the importance of automobilism, he said that when he was managing a line of steam traction from Pretoria to Rustenburg they carried about 130 tons of food per week for two columns 20 or 30 miles west of Pretoria. Thirty tons of that amount was food for men and 100 tons food for horses and mules. If they could have supplied self-propelled vehicles to the columns they could have cut down the weight to 7 or 8 tons of fuel in place of the 100 tons of forage. It would be found, he declared, if it had not been already proved, that all the heavier things, such as guns, wagons, engineers' park, etc., could be transported most successfully by self-propelled machines, either steam or oil. It was important that something should be done to relieve the English cavalryman and mounted infantryman of the huge weight the horses had to carry. He wanted to see the service supplied with some light vehicle that could accompany the cavalry and mounted infantry and carry part of the weight which killed the horses and destroyed the mobility of the British army. As an instance of what traction engines had done in South Africa, Colonel Crompton stated that he had seen engines take a 10-ton gun up a gradient of one in five at the rate of a gallop.—*N. Y. Electrical World and Engineer*, Dec. 15, 1900.





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## Reviews.

### The Story of the Soldier.\*

WE would have suggested that the word "American" be used in the title of this work, so that it might be "The Story of the American Soldier," as the text refers to that individual alone, and his history is traced from the beginning of our Government down to the present day. It possesses a peculiar value as a whole, and the large portion of the narrative which is devoted to the work of the soldier in the West, offers glimpses of endurance, of heroism and romantic daring whose epic quality leads us to wonder why the American Regular has had no one to sing his deeds. The editor says:

"Within two years we have lost a group of Regular officers whose long careers would illuminate the pages of any military history. Lawton, whose forty years of active service included the eventful days of the Civil War, a long experience of every form of service on the old frontier, and the chief campaign of the Spanish War, has fallen with his face to the enemy in the Philippines. Henry, that gallant cavalryman, whose terrible wounds are a part of the story of the soldier in the West, has passed away with Egbert, and with Liscum and Reilly, who have crowned their long and faithful service with the offer of their lives in China."

But the author of the work does not confine himself to the gallant acts and services of the officers alone. His record tells of those brave fellows of the ranks, who have upheld the flag from the organization of the Government, and he pays a faithful tribute to that well-known character in the army known as the "old soldier." He says:

"The veteran of 'the old army' was always the library's steadiest patron. He was often found there, or else stretched at full length on his bunk, intent upon a book relating to that part of the Civil War in which he was an actor. Regardless of the noise and movement all around him, he lived over again that glorious time, one year of which to him was worth a lifetime of this period of peace. If one listened to these old fellows talking to the youngsters, or questioned them, he found that they had a knowledge of that great conflict wide enough and minute enough to humble many a one who plumed himself upon his information. They had not lived beyond it, and were completely enveloped in its memories.

"They are mostly gone now, more's the pity. There were one or two in almost every troop and company a few years ago, sturdy old fellows, wearing four to six service chevrons on their arms. They had taken life as it came: Mexico, the plains, the war between the States, and then the plains again. They had looked on them all and were proud of themselves and their records, as they had a right to be.

"How long have you been a non-commissioned officer?" a lieutenant of

two-and-twenty demanded reprovingly of his sergeant of the guard, whom he thought needed a little instruction in his duties.

" 'Twenty-four years the 17th of last month, sir,' was the answer.

"Stiff and artificial in their movements, faithful in the highest degree, wedded to old times and old things, contemptuous and distrustful of innovations, these old fellows were disdainful of the young men who were always taking 'rises' out of them and the methods they were taught. It is even to be feared that they were inclined to look down on the alert young gentlemen whose first commissions needed the salt of usage. They were well cared for and looked out for by their officers, who liked and respected them. On account of their records they had special rights and privileges which they understood perfectly were no more than their due.

"It was a fine sight to see one of these old men on muster or monthly inspection. Erect and soldierly, with his red face glistening, his white hair cut close, his arms and accoutrements shining, not a wrinkle in his neat fitting uniform, nor a speck of dust about him, his corps badge, and it may be a medal, on his breast, he stood in the ranks among the others like an oak tree in a grove of cottonwood saplings."

\* By Brevet Brig. Gen. George A. Forsyth, U. S. A. (Retired). Illustrated by L. F. Zogbaum. Published by D. Appleton & Co., New York, 1900.

### Commodore Paul Jones.\*

This volume is one of a series entitled "Great Commanders," published by D. Appleton & Co., New York. It is replete with incidents in the life of one of the founders of the American Navy, and by letters and documents shows what difficulties this great naval commander encountered in endeavoring to serve the young republic. On the 7th day of December, 1775, Paul Jones was appointed the senior first Lieutenant in the new Continental navy, and soon made his name known, by his gallant deeds, to both hemispheres. In one of his letters Jones says:

"When the American banner was first displayed, I drew my sword in support of the violated dignity and rights of human nature; and both honor and duty prompt me steadfastly to continue the righteous pursuit, and to sacrifice to it not only my own private enjoyments, but even life, if necessary."

The value of a political pull was as well known in those days as now, and the man who was furthest away from the seat of government, no matter what his abilities or his services may have been, as a rule obtained the least reward. Paul Jones was not an exception. In a letter which he wrote to the Marine Board at Philadelphia he expresses himself on this subject, as follows:

"When I entered into the service, I was not actuated by motives of self-interest. I stepped forth as a free citizen of the world in defense of the violated rights of mankind, and not in search of riches; \* \* \* but I should prove my degeneracy were I not in the highest degree tenacious of my rank and seniority. As a gentleman I can yield this point up only to persons of superior abilities and superior merit, and under such persons it would be my highest ambition to learn. As this is the first time of my having expressed the least anxiety on my own account, I must entreat your patience until I account to you for the reason which hath given me this freedom of sentiment. It seems that Captain Hinman's Commission is No. 1, and that in consequence, he who was at first my junior officer by eight, *hath expressed himself as my*

senior officer in a manner which doth himself no honor and which doth me signal injury. \* \* \* Could I, which I never can, bear to be superseded, I should indeed deserve your contempt and total neglect. I am, therefore, to entreat you to employ me in the most enterprising and active service, accountable to your honorable board only for my conduct, and connected as much as possible with gentlemen and men of good sense."

The above letter was written after Paul Jones had been superseded in the command of the *Alfred* by Captain Hinman, and it does credit to his head and heart alike. There is no lover of history but will be glad to read the book, as it removes many erroneous impressions as to the character and ability of this noble seaman.

\* By Cyrus Townsend Brady, with portrait and maps. Published by D. Appleton & Co., New York; 1900.

### With Seven Generals in the Boer War.\*

It is very difficult for the very best of war correspondents to always understand the strategic movements and tactical distribution of troops pertaining to a campaign and subsequent battle in which an army is engaged—first, because he has not been educated in the science of war, and secondly, because his field of vision is limited to that of one man; but the author of the above work had the good fortune to be present at many of the operations under Generals Gatacre, Clements, Roberts, Methuen, Mahon, Baden-Powell, and Hunter. His letters attracted a great deal of attention when they first appeared, and they are now embodied with some fresh matter, the part relating to the relief of Mafeking being entirely new. It is impossible to do justice in brief space to Major Pollock's admirable volume. He has seen more of the war in its varied aspects than probably any other correspondent, and he has brought a soldier's eye to the things he had witnessed. Whatever he writes is well worth reading and the volume will be an excellent addition to any history of the war. Major Pollock was intimately associated with Mr. Amery in conducting the correspondence for the *Times*, and it was from the latter gentleman that he heard a good deal about the terrible fight at Paardeberg, when the losses were so serious. We must be content to quote what he says in order to illustrate his independent spirit: "The point which struck me most was the evident fact that the disposition of the attacking force was such that, whilst incapable of doing much harm to the enemy, it only needed that the two brigades chiefly engaged should gain ground to their respective fronts in order to ensure that they should fire heavily into each other over the heads of the Boers! Let it be granted that for some reason which has never been satisfactorily explained an attack was necessary—yet even this does not excuse its being badly organized and directed. The lives of gallant Colonel Hannay, and very many others, seem to have been simply thrown away." Major Pollock's account of his march with Colonel Mahon is very interesting.

\* By Major A. W. A. Pollock, late the Prince Albert's Somersetshire Light Infantry, and a special correspondent of the *Times* in the Boer War. Published by Skeffington & Son, Piccadilly, London, 1900; Price 6s.

### The Frigate Constitution.\*

To all lovers of history and particularly to the "toilers of the sea," the story of the old *Constitution* will be one of exceeding interest. While, as the author says, "the history of the *Frigate Constitution* is undertaken in order to

bring within the pages of one volume all the events which go to make a long and interesting career upon the sea," yet the work recalls much that has been forgotten. While, in no sense is it a history of the Navy, yet it forms a reasonably connected narrative of naval events, particularly of the good old frigate. The introductory chapter contains an account of the frigates as the Cruisers of the Sailing Navies; then follows the establishment of the U. S. Navy; description, armament and crew of the *Constitution*; Construction and first service; War with Tripoli; Outbreak of the War of 1812; Escape of the *Constitution* from a British squadron; destruction of the French frigate *Guerrière*; destruction of the *Java*; capture of the *Cyane* and *Levant*; and cruises and incidents subsequent to the War of 1812. The work is copiously illustrated, and cannot but aid in keeping alive the interest in our old ships and in the sailors who contributed with their lives to the welfare of our country. The old ship now lies neglected under a temporary roof at the Boston Navy Yard, where she is an object of special interest to all visitors.

\* By Ira N. Hollis; published by Houghton, Mifflin & Co., Boston 1900. Price \$1.50.

### Field Fortifications.\*

We welcome with much pleasure an American authority on the above subject. Col. Fiebeger has prepared this work as a text-book for the U. S. Military Academy at West Point—a work that has been much needed in the Army; for, as a rule, we have had to depend largely upon English text-books for the proper instruction of our officers and men. The author says, in his preface:

"In preparing this text-book for use in the course of instruction in field fortification at the United States Military Academy, the aim of the author has been to state briefly and clearly the principles of the art, and to illustrate them as far as possible by examples drawn from the experiences of field armies in recent wars; to show the relation which field fortification bears to the tactics of the battle-field and the strategy of campaigns; to modify the types of construction employed in the course to conform to the conditions imposed by modern fire-arms; and to omit the description of methods and constructions considered more or less obsolete.

"Since the details of field fortification, like those of other engineering works, are susceptible of indefinite variation, the illustrations shown in the plates must be considered simply as types of construction, not to be slavishly followed, but modified to conform to the varying conditions of site and service.

"To the chapters on field fortification proper have been added a few others, covering briefly the simple engineering operations of an army in the field. The subject of siege-works has been omitted from the present edition, as this subject is taught at the Academy in connection with military mining."

\* By G. J. Fiebeger, Professor of Civil and Military Engineering U. S. Military Academy; published by John Wiley & Sons, New York.

### Skirmishing Made Easy.\*

This is a handy little pocket companion, containing questions and answers as to "what to do and how to do it" in the way of skirmishing. In the preface to the work the writer says "The war [South African] had scarcely been in progress a week before it was found necessary to adopt formations and movements which were not in accordance with the principles laid down in the old infantry drill. \* \* \* From the writer's experience it is impossible to obtain really

valuable and efficient scouts without subjecting them in the first place to a sound *preliminary mechanical* training, which, in itself, tends to discipline the mind as well as the body for the *intellectual* work which follows." He has therefore divided the course of instruction into two parts—preliminary training and practical application. The book will be found of great advantage to be distributed among the enlisted men of a company.

\* By Major B. Witherby, late Adjutant 1st Batt. King's Own Yorkshire Light Inf. Published by Gale & Polden, Aldershot, England; price 6d., post free to any part of the world.

### Field Exercises, Problems in Minor Tactics.\*

Lieut. Col. Philip Reade (Major 4th U. S. Inf.), Inspector General U. S. Volunteers, has given to the American Army a handy little book with the above title which will prove of value to those commands having the opportunity to exercise in minor tactics. It is not every officer, no matter what his general good character as a soldier may be, that can plan an attack or defense. Therefore we think the author might have furnished some illustrations of attack and defense by way of explanation, containing necessary orders, instructions, etc. The problems given are good, but too brief to be fully understood by those not conversant with exercising independent commands. The book is useful, however, in the general instructions and hints given; but in another edition we should recommend more detail. We do not know the name of the publisher, or the price of the work; nor do we know even that it is for sale.

### Soldier's Training.\*

The author very justly observes that "Field days seldom do the soldier any good; they generally do harm, especially in the case of men who are not thoroughly instructed in individual training. Such operations cannot afford company officers sufficient opportunities to correct their men's mistakes. \* \* \* Operations which on a field day take but a few minutes, may, in the presence of the enemy, take days to execute. \* \* \* It would appear more practical, therefore, to manœuvre, at least at home, companies rather than battalions. \* \* \* It is hoped that these notes will assist in training the soldier to work against an enemy armed with modern rifles."

The work is more applicable to our National Guard, whose time for field service is limited, than to the army proper. Yet there is much in the little book of value to every soldier.

\* By Major H. DeB. Hovell, the Worcestershire Regiment. Published by Gale & Polden, Limited, Aldershot. Price 2s., post free.

### The Army Diary and Pocket Book for 1901.\*

The work is what it purports to be, and contains blank spaces under each day in the year for memoranda. In addition, for the benefit of the English soldier particularly it contains the names and titles of the Royal Family, with the date of birth, marriage, etc.; the names and titles of Her Majesty's Ministers; the names and titles of those connected with the War Office; the headquarters staff of the English Army; district commands; regiments and corps; Territorial titles; Volunteers; Rates of regimental pay; and many other matters as to events occurring under certain days of the diary.

\* Published by Gale & Polden, Aldershot, England; price 1s. 6d. nett.

### Do American Railways Pay?\*

We have received from that able and ever-progressive general passenger agent of the N. Y. Central and Hudson River R. R. Co., Mr. Geo. H. Daniels, a copy of the above pamphlet on the four subjects of "Decline of Rates," "Foreign Traffic Charges," "Government Ownership," and "Government Supervision." The fact of its having met with the approval of one so thoroughly familiar with railway matters as is Mr. Daniels, is sufficient recommendation as to its value.

\* By D. Car-Skaden; published by the Gunthorp Warren Printing Co., Chicago; 1909. Price 25c.

### The Army Officer's Examiner.\*

A third edition (revised to date) of this valuable work has just been issued by John Wiley & Sons, and for the benefit of the members of Boards of Examination, a value has been placed on each question at the commencement of each subject. It has stood the test of eight years' use in the army, and has proved of immense advantage to officers preparing for examination.

One officer writes: "In preparing for my examination I used no other book, as all subjects were brought prominently before me by going through the *Examiner*."

Another says: "I know that questions from the *Examiner* were propounded on some very high boards."

Another: "On the subject of hippology the book is a gem. The subject has been so thoroughly exhausted that it leaves nothing to be desired."

To ambitious officers of the National Guard the *Examiner* will prove of immense benefit, as the questions and answers on various subjects will unravel many technical difficulties.

\* By Colonel Wm. H. Powell, U. S. A.; published by Jno. Wiley & Sons, New York, 1901.